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THE  
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## DIFFERENTIAL DIAGNOSIS.

Differential diagnosis is always an important subject in practice, and is never more so than when a scheduled disease is one of the possibilities. Perhaps there are many clinicians who have yet neither fully informed themselves regarding the many comparatively unimportant animal affections which may be confounded with scheduled diseases, nor become sufficiently acquainted with the frequency and nature of atypical cases of the latter. The subject is one which deserves close study; but the study is far from easy.

Its intricacy is well illustrated by the long and comprehensive paper upon foot-and-mouth disease recently read by Mr. A. H. Berry, at a meeting of the Midland Counties V.M.A. Many readers will be surprised at the number and variety of unscheduled affections, some of them little noticed in our literature, which Mr. Berry describes as liable to be confused with foot-and-mouth disease. Even experienced country practitioners may learn something from his description, while it will be a revelation to some younger ones. The paper well shows the difficulties which not uncommonly attend veterinary preventive work in the field; although it concerns a disease which, in its typical form, is usually easily diagnosed.

Swine fever is another example. All practitioners know the frequent difficulty or impossibility of deciding upon its existence during life in isolated cases, though not all are sufficiently familiar with some of the affections which may be confused with it. Rinderpest, which may very possibly at least threaten to visit us from Europe in the next few years, is another disease which may present equal difficulties in the differential diagnosis of isolated cases. Broadly speaking, scheduled diseases in their most typical forms are easily recognised by the skilled veterinarian; but they may also appear in forms which are difficult to diagnose, and many other conditions may simulate the "sufficiently to mislead the inexperienced.

The Board of Agriculture whole-time veterinary officers are specially trained to cope with these difficulties. The general practitioner has no such advantage, but may well give himself some special training in addition to his college one. Two things are necessary for the working clinician to attain his maximum fitness to deal with scheduled disease. Firstly, the study of scheduled diseases themselves as far as possible, whether or not he has frequent opportunities of observing them. Much information can be gained regarding both their typical and atypical forms from the literature; and text-book study alone might prevent serious mistakes in some cases.

Secondly, to lose no opportunity of increasing his familiarity with the many diseases, less fully described in the literature but more or less commonly met with in practice, which may be confused with scheduled ones. Opportunities for this latter study in practice are more frequent than they used to be; for probably veterinary surgeons have never been so often consulted regarding the minor ailments of stock as at present.

The country practitioner's experience of the diseases of cattle, sheep, and pigs is now more extensive and varied than in the old days. This, properly used, is capable of indirectly greatly increasing his capacity to deal with cases which suggest scheduled disease.

## A NOTE ON THE ACTION OF MORPHIA ON A DOG.

By HENRY TAYLOR, F.R.C.V.S., Haywards Heath.

A small pug recently had a tumour on the tarsus of the left hind leg and it became necessary to remove it. The animal was normally rather nervous, so morphia seemed the ideal drug to use as an anæsthetic. Half a grain was accordingly injected subcutaneously, but instead of the usual effect, the dog became very excited, the expression of the face reminded one of a frightened wild animal, and she walked up and down behind the bars of the kennel exactly like a caged beast. There was no sickness nor passage of fæces, which are the usual concomitants after the injection of morphia, and as the above symptoms of excitement did not subside in the course of about half an hour, chloroform and ether were administered for the purpose of the operation.

There have been several cases recorded of morphia producing unorthodox results, chiefly excitement, but in the above case the symptoms were well marked, amounting almost to delirium.

## POISONING BY POTASSIUM NITRATE.

A farmer noticing that one of his cows had a slight attack of mammitis, decided to administer a pound of Epsom salts. With this end in view he went to the cupboard where he was in the habit of keeping his drugs, and from a brown paper bag took a pound of what he surmised was Epsom salts. The dose was given in somewhere about a quart of warm water at seven o'clock, and the cow was not seen again until nearly one, when she was found in a dying condition. The owner, on investigating the medicine used, found that the ani-

mal had had a pound of nitre (potassium nitrate) by mistake.

Finlay Dunn says that "Moirsud reports that half-a-pound given to horses inflame the alimentary canal and urinary organs, causing depression and death usually within twenty-four hours; and Kaufman states six ounces is the toxic dose for horses and cattle."

### SPECIFIC PARAPLEGIA IN BOVINES AND EQUINES—A NEW (?) DISEASE.

By WILLIAM SCOTT, F.R.C.V.S., Bridgwater

"Many animal diseases are distinctly local in their occurrence, their incidence is confined to certain countries or districts presumably because it is only there that the factors producing them are to be found. On that account they hardly receive sufficient notice from those who practise outside their radius and never expect to have to deal with them . . . . .

"When one of those local diseases is first locally recognised as an independent pathological entity no one can say whether it is peculiar to the district in which it was first distinguished . . . . . Whoever first differentiates a disease existing in one country or district, even though it may appear at first sight to be local and due to strictly local conditions, may be on the brink of a discovery of much wider import, his duty is to publish his first clearly ascertained results to the whole profession and place others in a position to judge of their value."

The above extract is taken from an Editorial appearing in *The Veterinary Record* of March 2, 1918, and in view of the observations contained therein I am tempted to submit the following report:—

**Definition.** A specific bacterial infection affecting bovines, and occasionally equines, located principally in low lying Marsh lands, characterised by gradual systemic emaciation and pronounced atrophy of the muscular elements covering the loins and pelvis in particular, usually running a sub-acute or chronic course, and terminating in spinal effusion and paraplegia.

**History.** My first real experience of this disease dates back to the late autumn of 1917, since when I have seen 107 authentic cases. These represent a small proportion of the number of cases which have succumbed to the disease. Many were drowned in the rhines,\* many were left untreated, and many more were killed. In this neighbourhood alone I compute the financial loss sustained would reach any figure between £75,000 and £100,000—a sum, by the way, sufficient to build and handsomely endow a Veterinary Research Institute. If the disease has been in existence in this neighbourhood prior to last year I, for one, have failed to associate it with the present serious epidemic. It is reasonable, however, to point out that one may have seen in practice sporadic cases which, by reason of their limited number, cause no apprehension; and I confess it was the large proportion of cases in this outbreak that stimulated me to further investigation.

**Geographical distribution.** In my own practice the disease has shown a considerable predilection for low-lying marsh lands, situated particularly to the southern, south-western, and eastern aspect. The more western and northern areas which are somewhat hilly are, in my experience, immune. The sea-level marsh lands during the greater part of last spring and summer

were continually under water—a condition of affairs outside the memory of living inhabitants, consequently these rich pasture lands were not stocked until the late summer and early autumn, whilst the hay in some cases was not cut and carried till Christmas, and even after.

**Predisposing causes.** The two most prominent factors under this head are climatic and dietetic conditions, the latter aggravated by existing war rations—the scarcity, inferior quality, and high cost of artificial foods. In certain districts one finds from experience that land submerged even for a considerable period during the cold winter months is not only unharmed by submerging but is beneficially affected; no so, however, when flooding extends to the summer months. With thousands of acres under water—a condition which we experienced in this neighbourhood last year, the comparative stagnant condition of the water combined with the summer heat tended to excite putrefactive changes. The land became "sour," rapid decomposition of underlying vegetable matter took place, brought about by bacterial activity, and further, there was an extraordinary development of insect life, including the mosquito, in these areas. Furthermore, the summer of 1917 was extremely wet and sunless, the hay and roots, consequently, did not carry a high nutritive value, and artificial food being a scarce quantum, the normal healthy index of cattle was much reduced—50% to even 75%, making them, therefore, the more susceptible to bacterial infection.

**Etiology.** The constant symptom of paraplegia forced me to direct my operations primarily to the spinal cord, and on Nov. 29, 1917, I attempted my first *lumbar puncture* on cattle. The case was a heifer (primipara) eight months in calf. As I am not aware of lumbar puncture being a recognised procedure in veterinary practice or, indeed, if it has ever been attempted in bovines, a description of the *modus operandi* may be permissible here.

The patients being paralysed and in a recumbent position makes them easy subjects for the operation, as no methods of restraint are required. The best site for entering the spinal canal, I find, is between the fourth and fifth or fifth and sixth lumbar vertebrae, just in front of the prominence caused by the internal angle of the ilium. Having thus far located the site by careful palpation, one discerns a soft depression between the supra-spinal processes, and it is here the needle is inserted. Prior to operation the hair is shaved, the skin scrubbed with pure lysol, dried with cotton-wool and then painted with tinct. iodine. The needle having been previously boiled, is thrust through the skin immediately over the central spinal axis, the point being directed slightly forward. Considerable force is required, but as soon as the needle enters the neural canal it moves easily, and proof of this is obtained by the animal cringing, trying to move forward, and giving a groan or a bellow. The inexperienced operator may fail to locate the spinal foramen with the needle at first, in which case he must, by varying the needle angle, obtain an entrance. With practice the operation may be completed by a single direct thrust. The distance from the skin to the neural canal varies from 2½ in. to 3½ in., so that the needle must be 4 in. to 5 in. long.\*

I have made 29 lumbar operations without a single "dry" puncture, and without any untoward sequelæ. The greatest quantum of fluid removed has been 50 c.c., and the smallest 10 c.c. In by far the largest number of cases the spinal fluid *escaped under pressure*. The latter

\* A local term applied to cut ditches which fill the double purpose of intersecting fields and creating surface drainage.

\* The needle I use is similar to the one I had made for lung punctures. It is 6 in. long, bayonet pointed, and has a few perforations at its distal end.

is an important pathological fact which I desire to emphasise. In the majority of cases the fluid is quite clear, sometimes, however, it may be blood-tinged through the puncturing of a small spinal vessel. It is always strongly alkaline and rich in albumen. No post operative treatment is required. I have tapped several cases two and three times, and one case four times in all. It is well to be prepared with a sterile stillette, for one sometimes finds the needle becomes blocked with muscular and other tissue. When great difficulty is experienced in puncturing the canal, I lay the patient on her side with both hind legs drawn forward and pressed against the abdomen. By doing this the spinal column is curved, widening the supra spinatus processes and the spinal foramen.

The therapeutical value of this operation has its limitation, but in those cases where the larger quantity of fluid is removed and the greater degree of pressure apparent, the better the results appear to be. Having by these operations ascertained the constant existence of excess spinal effusion, one naturally concluded this was the cause of the disease, and some hopes of good results from its abstraction were entertained. In this I was somewhat disappointed.

After performing my seventh puncture I determined to make a bacteriological examination of the spinal fluid. By inoculating nutrient agar tubes no growth was obtained. I then flooded the media with the spinal fluid, but still no growth. On blood agar, procured by puncturing one's finger and dropping the blood into sterile citrate of soda solution and mixing it with melted agar, I secured a luxuriant growth. Having thus obtained a culture, the organism grew easily on plain agar. In every case of lumbar puncture thus made the same organism was isolated, but the process is tedious to a busy practitioner, and involves much time. I therefore felt impelled to investigate the blood stream. The hair was shaved off both aspects of the ear (apex), scrubbed with lysol, dried, painted with iodine, and the ear slit with a sterile lancet. After the blood had well washed the wound a few drops were collected in an agar tube direct, and allowed to flow evenly over the surface. Coagulation time was much deferred, a point I have noted in every case; to obtain, therefore, a fair fixation of blood elements to the agar surface it was necessary to keep the tube in a slanting position for 15 to 20 minutes. Incubating a tube thus prepared produced an excellent culture, by this means I now obtain my vaccine, which, by the way, has been for nearly every case an autogenous one. Having isolated an organism which so far was constant in its presence, efforts were made to study its characteristics. In some 12 or 15 cases additional bacteria were isolated from the blood, but their irregular characteristics and inconstant presence suggested alien and probably saprophytic origin.

As a possible factor in the etiological cycle I might mention that in every case examined—which were many—I found a louse (*Hæmatopinus tenuirostris*) infesting the patient. Lice taken from five different cases harboured a short bacillus microscopically identical with, and giving staining reactions characteristic of, the bacillus found in their hosts' blood. As a blood sucking parasite it is feasible to conclude the louse became infected from its host. On the other hand, it is just possible the louse inoculated its host with this organism at the outset. Which hypothesis is the correct one I do not pretend to say.

**Bacteriological findings.** In smears from the spinal fluid the bacilli are short, almost cocci in shape, and suggest evidences of pleomorphism. In blood smears they vary in length from 0.8 to 1.3 $\mu$ . They are rounded at the ends somewhat and possess hæmolytic action.

**Staining.** The organism stains well with the ordinary aniline dyes, but not by Gram. With carb. fuchsin some of the bacteria stain irregularly. Studied through-out the field some present bipolar staining.

**Biological characters.** It is aerobic and grows best at from 35° C. to 38° C.

**On gelatine (surface),** growth is very tardy, the colonies being white with irregular edges; (*stab*), on the surface a delicate white slime; along the course of the needle a faint, regular, nail-like growth occurs. The gelatine does not liquify.

**Agar (plain).** One very seldom obtains a growth.

**Agar (blood).** Growth luxuriant in twelve hours: the colonies tend to coalesce, covering the whole surface with a grey, glistening, toughened surface mass.

**Glucose agar (surface).** Similar to blood or serum agar; (*stab*), extensive surface growth; along the course of the needle filiform growth.

**Glycerine agar (surface).** Colonies more discrete than in the preceding media, lighter in colour and not corrugated. (*Stab*), surface growth, rich and extensive, along the course of the needle, echinate.

**Litmus agar.** Moderate colonies of light grey, with irregular borders.

**Broth.** A grey surface scum forms in 24 to 36 hours, but the medium does not become cloudy.

**Potato.** No growth. On alkaline potato a slimy grey growth occurs.

**Acid.** None.

**Gas.** None.

**Motility.** Non-motile.

**Vitality.** Colonies exposed to day-light on nutrient media live for three months at least.

[NOTE.—Considering paraplegia is the most important symptom and condition in this disease, the bacillus associated with it might be known as the "*Bacillus paraplegicus*."] ]

**Semelology.** When the veterinarian is called in he usually finds his patient down and unable to stand. Attempts to make her rise generally succeed in getting her to raise the front parts, making her take the position of a dog sitting on its haunches. The pulse is slightly quickened and is often dicrotic, the respirations normal, and the temperature only slightly raised. The appetite, save in extreme cases, is usually good throughout and occasionally capacious, the bowels are normal unless complications such as Johne's disease or distomatosis exist. Singularly enough, in all cases of uncomplicated paraplegia the coat is glossy and healthy-looking, and the skin is not hidebound. In a wasting disease such as this, this phenomena, in my experience, is unique, and it is so palpable in every case as to be most striking. The eye carries its natural brightness almost to the end. The conjunctiva is normal in appearance save that part of the mucosæ which protrudes as a bulb at the minor canthus when the eyelids are parted and the membrana nictitans extends over the eyeball. This part is in nearly every instance of a tinge between lemon and orange, and appears as a striking contrast to the colour of the rest of the mucosæ.

When such an animal goes down she is quite incapable of rising until the elapse of many days and even weeks. The muscles covering the lumbar and pelvic regions seem almost to disappear, giving these areas a skeletal appearance, which is particularly noticeable when one stands and looks along the line of the back. Such an observation compels one to look upon the subject as a "screw," but if looked at sidewise, the ribs being usually well covered and the abdominal viscera well filled, the contrast is very great, and one's opinion is likely to be revised. This disparity is most constant and pronounced save in extreme and complicated cases, so much so, in fact, that by intuition I have gone through dairies pick-



Heifer after being paralysed for five weeks.  
Note wasted pelvic region.

ing out infected cases for immunisation purposes, and these have generally been confirmed later by bacteriological tests. This muscular atrophy, I incline to opine, is due to neurotrophic influences. The usual history one receives is that the cow was found in a rhine, she was dragged out, but was unable to stand, the natural inference being that getting into the rhine was the cause of her inability to stand rather than a case of *post hoc propter hoc*.

By far the larger number of cases are in calf cows, between the 8th and 9th month of pregnancy, in fact just at the period when the foetal requirements are most exacting upon the maternal resources while the gravid uterus is at its heaviest.

It will be patent that the affection in such conditions has a double economic import, inasmuch as the offspring cannot be strong and healthy; while parturient complications are likely to supervene. Among the most common met with are abortion, premature delivery, and a sickly calf, prolapsed uterus, permanent paraplegia. The paralysis is motory rather than sensory, the reflexes of the limbs appearing to be quite normal.

In the four cases met with in equines, one was a gelding and the other three were pregnant mares. The two cardinal symptoms in them, as in cattle, were in evidence—characteristic atrophy of certain sets of muscles, and paraplegia. The horse in this, as in all other forms of paraplegia, is not such an amenable patient as the ox. When he is unable to stand, as everyone knows, he rolls on to his side, fights with the air and hastens by exhaustion, dissolution.

**Treatment.** Ordinary therapy has no specific effect upon this disease, but withal I do not advocate its entire elimination. The excretory organs, as in all bacterial intoxications must be kept flushed by such agents as sodii chlor. and mag. sulph. for the bowels, turpentine for the kidneys, and salicylic acid for the skin. General management must be carefully attended to in its min-

utest detail. Thus, when the animal is down one must recognise the fact that as it will remain in the recumbent position many days, efforts must therefore be directed against bed-sores,\* the *bête noir* in these cases, by making provision for the animal to lie on a soft floor. One or two feet of sand or gravel soil makes an excellent ground-work, covered with short, soft bedding. The patient should be turned two or three times a day, and, if need be, pads may be put on the knees and hocks. Averse as I am to slinging in cattle practice generally, I have seen the greatest benefit derived by daily placing the patient in slings for one to two hours at a time. By so doing the risk of muscular cramp and bed-sores is considerably reduced.

**Special treatment.** In my early lumbar puncture cases I carried out a series of direct injections on to the spine, but the results were so far disappointing. These remedies consisted of warm solutions of (a) strychnine, (b) neo salvarsan, (c) tinct. iodine, and eventually I gave them up. After detecting the bacillus in the blood stream, I set about preparing autogenous vaccines. The net results obtained from these were, (i) the fourth injection cleared the blood stream of the bacillus in several cases, so that no artificial cultures could be obtained. In obstinate cases six injections were required. (ii) In uncomplicated cases the course of the disease, I believe, was shortened. The largest percentage of failures were those cases showing complications. The cases which were taken early, that is to say, before they went down, responded most readily to vaccination, two injections served to clear the blood stream, and only very occasionally three were required; and the rapidity with which these cases improved in condition afterwards is worth noting. After many experiments, speaking generally, the following standard of doses gave me the best results:—

First dose	Sterile	...	10,000,000,000
Second dose	Sterile	...	30,000,000,000
Third dose	Very attenuated	...	60,000,000,000
Fourth dose	Slightly attenuated	...	60,000,000,000
Fifth dose	Attenuated	...	60,000,000,000
Sixth dose	Virulent	...	30,000,000,000

One dose to be injected every five or six days.

In addition to vaccination, sodium cacolyatet† was injected two or three days after each vaccine injection, in five cases with, I think, decided benefit, for recovery appeared to be more rapid than when the vaccine was used alone. The dose of this drug to begin with was one gm., doubled at each injection; the maximum dose being four gm.

TABLE SHOWING MONTHLY TOTAL OF PARAPLEGIA CASES AND TREATMENT ADOPTED.

	No. of cases.	Destyd.	Died.	Recovered.
Nov.	12	5	4	3
Dec.	10	3	2	5
Jan.	15	7	4	4
Feb.	23	6	7	10
Mar.	30	3	13	14
April	15	...	6	9
May	2	...	...	2
Total	107	24	36	47 †

\* It reflects no credit upon the practitioner to cure his patient of paraplegia and eventually allow it to die from septicæmia, the result of neglected pressure sores.

† Sodium cacolyate (sodium dimethylarsinate) is an organic compound of arsenic, and is less toxic and more tolerant than the inorganic combination. I am greatly indebted to Messrs. Parke, Davis & Co. for preparing, at my request, this drug, and supplying me with a liberal quantity for investigation purposes.



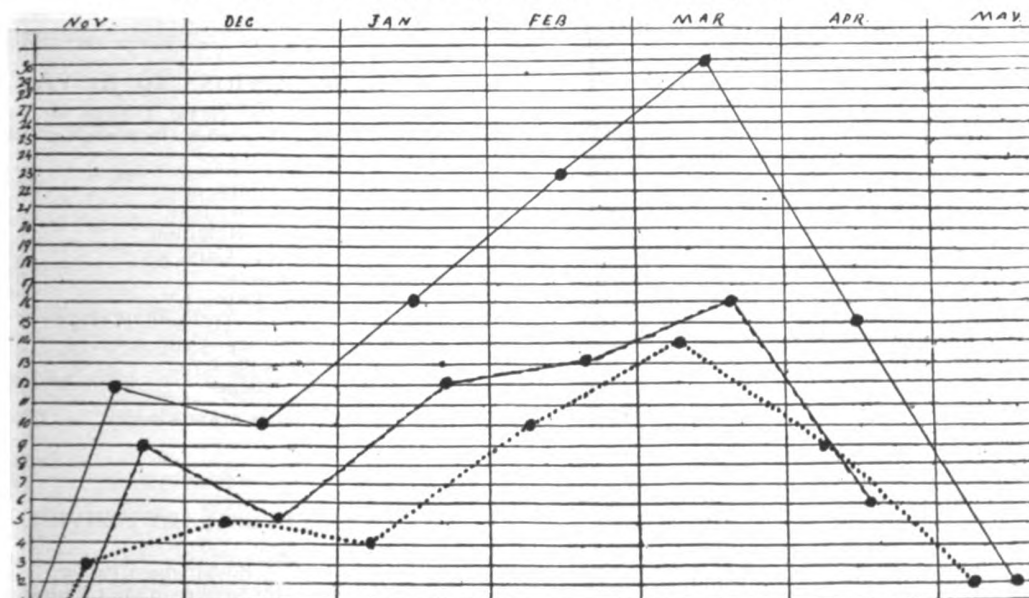
†*Treatment.* Nov: Ordinary, 3. Dec: Ordinary, 2; Vaccine, 3. Jan: Vaccine, 4. Feb: Vaccine, 10. Mar: Vaccine, 14. Apl: Vaccine, 6; Vaccine *cum* Sodium cacodylate (subcut.), 3. May: Vaccine *cum* Sodium cacodylate (subcut.) 2.

**Prophylaxis.** When practicable, cattle should be moved from marsh land to high, dry ground. The hay from such ground should be used sparingly and mixed with salt and given along with high-ground, *hard* hay. Cattle that are losing in condition and are showing symptoms of muscular atrophy should be isolated from the herd and a *biological* examination of the blood made—microscopical examination of a blood smear

giving *negative* results is *no proof* that the organism is absent.

Cattle harbouring the bacillus should be isolated from the healthy, vaccinated with preferably *autogenous* vaccine and fed on the most nutritious food obtainable. In those herds where the disease has shown itself I strongly advise immunising them all by vaccination. In the case of 33 cows which were found to be infected with the bacillus although clinically only lightly affected, I carried out immunisation with apparent good results by giving the invariable initial sterile dose of 50,000,000,000, and a second attenuated dose of the same strength ten days later. Two out of this number went down; one died, the other lived, while the remaining 31 did well.

CHART SHOWING MONTHLY RETURN OF PARAPLEGIA CASES.



A B C (A) No. of cases each month: (B) Recovered: (C) Destroyed or died.

**Morbid anatomy.** The blood is very thin and watery. The serous membranes—cardial, pleural, peritoneal (parietal and visceral), and spinal—are all soaked with non-coagulated serum, while the serous cavities contain to a greater or lesser degree an accumulation of serous fluid which is very alkaline and rich in albumen. Occasionally the mucous membranes are similarly affected; but the connective tissues seldom. In other words, serous effusions appear in those tissues whose anatomical dispositions offer the blood vessels the least support in free surfaces and as the effusion is non-inflammatory one may presume that some specific action is going on, not only in the capillary vessel walls but also in the blood itself, by free bacterial toxins and probably by the bacteria themselves. The muscular elements are pale and flabby, while those in the region of the loins and quarters are almost grey in colour and soapy to the touch. In uncomplicated cases the macroscopic appearances of the parenchyma of the various organs do not suggest anything abnormal.

**Compendium.** I have endeavoured to show: (1) That if this disease is not new in the annals of veterinary science it never has previously reached the serious proportions it has in the years 1917-1918; nor are there any records, so far as I am able to trace, of it having been previously described.

(2) That a special bacterium always accompanies the condition, its constant presence having been demonstrated not only in the general circulation, but also in the spinal effusions.

(3) That this effusion is always in excess, and on tapping leaves the canal *under pressure*.

(4) That two out of the three most important postulates of Koch have been fulfilled in associating this organism with the disease; while in addition to these, vaccines derived from the bacterium in question certainly exercise a specific action upon the patients, with considerable curative and prophylactic values.

(5) That vaccination offers to stockowners an important economic proposition, particularly considering the face value of horses and cattle to-day.

#### Koch's Postulates.

(i) The organism in question must be present in the tissues, fluids or organs of the animal affected with or dead from the disease.

(ii) The organism must be isolated, and cultivated outside the body on suitable media for successive generations.

(iii) The isolated and cultivated organism, on inoculation into a suitable animal should reproduce the disease, and the same organism must be again obtained from the inoculated animal.

## ABSTRACTS FROM FOREIGN JOURNALS.

EQUINE TRYPANOSOMIASIS IN MOROCCO—  
INFECTION OF A MILK-SUCKING PUP.

H. Velu and R. Eyraud, in an article upon this subject refer to the works of Nattan-Larrier and Lanfranchi on the excretion of trypanosomes by means of the milk of infected females (*Bull. Soc. Path. Exot.*) The following case is recorded:—

Five days after giving birth to three pups a bitch was infected subcutaneously with 20 c.c. of the blood of a goat infected with the trypanosome affecting horses in Morocco. A rise of temperature took place on the third day after injection, and a few parasites appeared in the peripheral blood on the 14th day; they then disappeared, but became very numerous again about a month afterwards, and then again for about 15 days before the animal's death, which took place on the 66th day after injection.

One pup was allowed to suck its mother, while the other two were taken away 14 days after birth; these two grew up normally. The first, when about two months old, seemed to have become stunted in growth and dull, and then gradually became more and more emaciated. When three months old it became affected with conjunctivitis and then keratitis of the right eye. On examination of the blood a few days afterwards, a few trypanosomes were found, which became more and more numerous till the animal's death at the age of three and a half months.—(*Trop. Vet. Bulletin*).

THE ACTION OF THE PITUITARY GLAND  
UPON THE RENAL FUNCTIONS.

M. Romme has given an account of the researches of different workers upon this subject in *La Presse Medicale* for 1917.

In 1901, Magnus and Schäfer published their work upon the diuretic action of the pituitary gland. In 1906 Schäfer continued his experiments in collaboration with Herring, and came to the conclusion that this diuretic action is dependent upon the secretions of the posterior lobule and the *pars intermedia* of the gland, extracts of which were considered by these two workers to be the physiological diuretic *par excellence*. They found, also, that the anterior lobule of the gland was destitute of all diuretic action. In consequence of these experiments, the primary rôle in the genesis of diabetes insipidus was attributed to a hyper-function of the pituitary gland.

But the conclusions of Schäfer and his collaborators, admitted by the classical authors and reproduced in many works, have not been confirmed by all the later researches, many of which arrive at distinctly contradictory conclusions.

The clinical experiences published in 1916 by Motzfeldt, who had already repeatedly studied the relations between the pituitary gland and the kidney, appear to demonstrate incontestably that the posterior lobule of the gland exercises a real action upon the kidney, but, contrary to the currently admitted conclusions, produces diminution of diu-

esis and urinary concentration. This conclusion is in accord with the results obtained by Lereboullet and Faure-Beaulieu in the treatment of a case of diabetes insipidus with pituitary gland.

The mechanism of this action is obscure. Does the pituitary gland act upon the kidneys by the circulatory system, by the automatic or sympathetic nervous system, or by the intervention of another gland of internal secretion? The problems cannot yet be discussed. It may, however, be pointed out Frankl-Hochwart and Fröhlich have demonstrated, in an animal under the influence of injections of pituitrin, indisputable signs of hyper-sensibility both of the automatic and sympathetic nervous system in equal degree.—(*Revista de Higiene y Sanidad Pecuarias*). W. R. C.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

E. J. Burndred, Capt. A.V.C.	£1	1	0
Archibald Edgar, Withorn	1	1	0
Daniel Hamilton, Hamilton	1	1	0
Charles Nicholson, Capt. A.V.C.	1	1	0
D. Pugh, Sevenoaks	1	1	0
James E. Syme, Capt., A.V.C.			
(1915-16-17-18)	4	4	0
Frank S. Warburton, Capt. A.V.C.	1	1	0
A. E. Willett, Capt. A.V.C.	1	1	0
F. W. Willett, Staines	1	1	0
Previously acknowledged	876	18	5
	£889	10	5

## ARMY VETERINARY SERVICE

Buckingham Palace, June 29.

The King held an investiture in the Quadrangle of the Palace this morning.

The following were introduced into the presence of His Majesty, when The King invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

## THE DISTINGUISHED SERVICE ORDER.

Lieut.-Colonel Charles Edgett, Canadian A.V.C.  
Lieut.-Colonel David Tamblin, Canadian A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, June 27.

## REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. A. L. Horner to be actg. Maj. whilst empld as Asst. Dir. of Vety. Servs. (Aug. 29, 1916), and to retain his actg. rank on appt. as Dep. Asst. Dir. of Vety. Servs. (June 16, 1917).

June 28.

Capt. P. J. Simpson D.S.O. (T.F.), relinquishes the actg. rank of Lt.-Col. on ceasing to hold the appt. Asst. Dir. of Vety. Servs. (June 7).

Capt. E. G. Turner, D.S.O., relinquishes the actg. rank of Maj. on ceasing to hold the appt. of Asst. Dir. of Vety. Servs. (Apr. 8).

June 29.

Maj. (Bt. Lt.-Col.) J. J. Aitken, D.S.O., relinquishes the actg. rank of Lieut.-Col. on ceasing to be specially empld. (May 6).

July 1.

Temp. Lt. to be temp. Capt. :—M. M. McLeod (Dec. 28, 1917).

Temp. Capt. M. M. McLeod relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of Capt. (July 2).

To be temp. Lt. :—A. McTurk (June 12).

TERRITORIAL FORCE, ARMY VETERINARY CORPS.

July 3.

Capt. (actg. Maj.) J. A. Dixon relinquishes the acting rank of Maj. on ceasing to commd. a Vety. Hospital (June 18).

### VETERINARY SURGEONS AND NATIONAL SERVICE.

To the Editor of "The Veterinary Record."

Royal Veterinary College,  
Camden Town, N.W. 1, June 26.

Sir.—I enclose the following correspondence which may be of interest to many of your readers who may have noted the action of the Central Veterinary Society in the above matter.

I am taking the unusual course of sending it to you now, since it would otherwise be delayed for about a month for the publication of the proceedings of the next meeting of the Central Veterinary Society.

Yours faithfully,

GEO. H. WOOLDRIDGE.

Copy.

Central Veterinary Society,  
10 Red Lion Square, W.C. 1.  
7th May, 1918.

To the Rt. Hon. the Minister of National Service.

Rt. Hon. Sir,—I have been requested to forward to you the following Resolution passed at a meeting of the Central Veterinary Society on the 2nd inst., and to beg that you will give it your very favourable consideration :—

That this Central Veterinary Society is of opinion that the cases of Veterinary Surgeons of military age should be referred to a Central Panel, composed of Veterinary Surgeons, who would act as an Advisory Committee to the Ministry as in the case of medical practitioners, and that their decision should be accepted by the Tribunal.

With regard to a panel, the Society would suggest the President and Council of the Royal College of Veterinary Surgeons, or, failing that, the National Veterinary Medical Association of Great Britain and Ireland.—I am, Rt. Hon. Sir, yours obediently,

G. H. WOOLDRIDGE, President.

Copy.

Ministry of National Service,  
Westminster, S.W. 1.  
May 23, 1918.

Sir,—I am instructed by the Minister of National Service to advert to your letter of the 7th inst. The suggestion that a special advisory committee should be appointed to deal with applications to Tribunals on behalf of Veterinary Surgeons has been considered, but Sir Auckland Geddes regrets that he is not able to assent to the proposal.—I am, Sir,

Your obedient Servant,

(Signed) H. R. BOYD.

The President, Central Veterinary Society.

### VETERINARY STUDENTS AND ARMY SERVICE.

Dear Sir,—As a veterinary student I consider it my duty to draw the attention of your readers to the way in which we are being treated as regards military service. Some few months back a special effort was made to get as many third and fourth year students released from the army, and other positions in which they were, in order that they might complete their qualifications.

Among others I myself have returned in order that when qualified I might join the A.V.C.; now we are given to understand that all students of Grade I and II, between the ages of 18 and 23, are to join up, and apparently not in their own corps. It seems to me a disgraceful thing that men who have gone to considerable expense to obtain their qualification should not have their knowledge better applied.

At the beginning of the war a groom could join the A.V.C. as a Quarter-master-sergeant, but apparently "the powers that be" do not consider a veterinary student of three or four years standing capable of undertaking similar work, although he has attended courses in Materia medica and the study of disease, and in many cases managed veterinary practices. It seems to me only fair that we should have some recognition of our capabilities, and if it is really necessary that we should be taken from our studies, I think I am safe in saying that the number of men that will be obtained from all the colleges concerned will not exceed 100, it would not be asking too much that we should be made Second Lieutenants in the A.V.C., and attached to Veterinary Hospitals where we should be, in the first place, of greater service to our country, and, secondly, gain surgical experience which would be of great advantage to us and the public generally when we have obtained our diploma and launch out into whatever branch of the profession we decide to adopt. I feel confident that unless something of the kind is done very few of us will return after the war. I might add, this calling up notice does not affect me, but if we are not given a clearer understanding of our position with regard to this matter, I, for one, shall not wait to be fetched.

I trust this matter will be taken up through the right channel.

LOOKING AHEAD.

### OBITUARY.

ARTHUR RICHARD ROUTLEDGE, F.R.C.V.S., Louth, Lincs.  
Graduated, Edin: May, 1895.

Capt. Routledge, who was 44 years of age, had been discharged from the Army on account of an injury received from the kick of a mule, resumed his veterinary practice, and had been elected a member of the Town Council. Unfortunately he became seriously ill before he was able to take his seat, and died in the 4th Northern General Hospital, Lincoln, on June 27th.

The Military funeral took place at Louth on Monday. The former portion of the service was held in the Parish Church, and was attended by the Mayor and Corporation, magistrates, and farmers of the locality, as well as representatives of the military authorities.

GEORGE FRED. ROSE VINCENT, M.R.C.V.S., Sutton, Surrey.  
Graduated, Lond: April, 1868.

Mr Vincent died 24th June, aged 71.

HENRY SMITH, M.R.C.V.S., Worthing.

Graduated, Lond: July, 1884.

Mr. Henry Smith, one of the best-known veterinary surgeons in West Sussex, passed away at his residence, Winton Lodge, Worthing, on Thursday, June 27th.

The deceased, who was fifty-six years of age, had been in failing health for some months; but the news of his

death nevertheless came as a painful shock to his many friends.

Son of the late Dr. Samuel Smith, of Winchcombe, Glos., the deceased was educated at Cheltenham Grammar School, and obtained his diploma R.C.V.S. in 1884.

He came to Worthing in 1886, where he purchased the old-established practice of Messrs. Rolls & Tyler, originally founded here by Mr. Coomber more than a century ago.

In the early part of 1900 Mr. Smith was appointed Veterinary Inspector for this Division under the County Council; and for several years past also held a similar appointment under the Town Council.

A great lover of animals, and especially of horses, he took an active part in the organisation and management of the old West Sussex Horse Show and Jumping and Driving Competition in Beech House Park, which used to be such a prominent feature of the season's attractions at Worthing; and he was actively associated with the several Dog Shows that have been held in the town.

In March, 1909, he was unanimously chosen President of the Southern Counties Veterinary Society, with the late Mr. J. A. Todd as its Hon. Sec.; and in the summer of that year his fellow members held their periodical meeting at Worthing, when Mr. Smith entertained them to dinner at the Albion Hotel, and afterwards continued his hospitality at his residence in Chapel Road.

His wide professional knowledge, coupled with a genial disposition, gained him many friends, and the news of his death will be received with general regret, not only by his own clients and professional colleagues, but by a wide circle of acquaintances.

A widow, three daughters, and two sons are left to mourn his loss. One of his sons is at present in practice as a veterinary surgeon at Horsham; the other holds a commission as Lieutenant in one of the Battalions of the Royal Sussex Regiment.

The interment took place on Tuesday afternoon, at Broadwater Cemetery, preceded by a service at Christ Church. A wreath from the President and members of Southern Counties Veterinary Society was among the many floral tributes.—*Worthing Gazette*.

### Personal.

FOSTER—NOWILL. On June 26, at St. Bartholomew's Church, Sydenham, by Rev. W. H. Boyne Bunting, Vicar, assisted by Rev. R. Bevan Jones, Vicar of St. Augustine's, Bermondsey, Major Arthur Norman Foster,

A.V.C., younger son of Mr. and Mrs. Philip Foster, of Clifton, Derbyshire, to Mary Dorothy, only daughter of Mr. Ernest Nowill and the late Mrs. Nowill, of "Kirk lynton," Sydenham, S.E.

Mr. W. H. JEBSON, V.S., Pocklington, has purchased from Mr. Edwin Pears, Laytham Green, at a good price, two of his Hackney ponies, a two-year-old filly and a yearling entire colt. Both are by Melbourne Spot, who made 450 gs. at the late Mr. Cliff's sale. Their dam, Lady Moon, is a 13 h. 2 in pony by Champion Successful, and their granddam Mignonette by Champion Berkeley Model.

### Seaweed as a food.

The following notes are from the correspondence columns of *The Scottish Farmer* :—

"The Rev. J. G. Wood in his well-known book, 'Common Objects of the Sea-shore,' mentions 'fucus serratus' as being most useful for feeding cattle. On this West coast a band of it grows all along the shore, about 30 yards in width, and it grows nearer to the land than any other seaweed, only being covered by the sea at high-water. Consequently it is much less salt to the taste than most seaweed. It looks rather like carajeen. I boil it and feed both hens and pigs on it, mixed with boiled potatoes. The pigs are especially fond of it, and thrive well on it. When boiled it becomes dark brown, and has an almost 'meaty' smell. This seaweed never dies down. Here the sheep and wild goats eat it when grass is scarce, and I have never heard of it harming them. I am told that in olden times it was much used in the Highlands as feeding for pigs. It is a pity that it is not more used."

"I had a farm on the sea coast for 29 years, and sheep suffered no harm from eating seaweed.—M.C."

### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND.

#### British Committee.

Chairman : F. W. Garnett, C.B.E., J.P., M.R.C.V.S.  
Hon. Treasrs. : J. A. W. Dollar, M.R.C.V.S.  
T. Salusbury Price, M.R.C.V.S.  
Hon. Secs. : Sir Stewart Stockman, M.R.C.V.S. }  
Fred Bullock, }  
10 Red Lion Square, London, W.C

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period,	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.											
Week ended June 29	2	2					65	116	2	53	16
Corresponding week in											
1917 ...	5	11				1	46	70	3	43	25
1916 ...	9	10			2	4	26	50	4	120	274
1915 ...	7	12			3	3	20	44		120	543
Total for 26 weeks, 1918 ...	143	161			19	55	2999	5736	244	719	260
Corresponding period in											
1917 ...	293	336			14	26	1584	3168	383	1412	609
1916 ...	318	376	1	24	27	71	1476	3452	177	2615	8085
1915 ...	358	401			26	40	1418	1911	156	2332	10777

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

a) Confirmed. (b) Reported by Local Authorities. † Counties affected, animals attacked :—

Board of Agriculture and Fisheries, July 2, 1918

Excluding outbreaks in army horses.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1566.

JULY 13, 1918.

VOL. XXXI.

## THE COUNCIL MEETINGS.

The Councilmen attended in good numbers last week, and consequently the important arrears of Registration Committee work could be cleared up. It is to be hoped that this is an augury of better attended meetings in future.

The unanimous re-election of the President will please everybody. The course was obviously the wisest. No other man, just now, is quite so well fitted for the Presidential duties as Mr. Garnett; and the whole profession will feel confident that everything possible will be done for our interests throughout the coming year.

Our finances show a little improvement, but the position remains essentially the same. Voluntary subscription must continue, and must increase in future, or the work of the College cannot go on.

The negotiations with the Government regarding the re-settlement of veterinary officers in civil life should be closely watched. Not much can be said concerning them at present; but they may profoundly affect the future of the profession. The movement for financially assisting veterinary students who have served in the war may also prove of great importance.

The endeavours to prevent the calling up of Veterinary Students have not been successful. This is damaging to the profession, and mischievous to the prospects of agriculture. The evil fruits will soon be in evidence, and will be with us for years to come. The efforts to establish a Veterinary Tribunal have likewise suffered reverse—for reason given see report. But this is not yet considered hopeless.

A matter of direct importance to practitioners—the supply of Turpentine for medicinal purposes—has been set straight by the action of Mr. Bullock (pp. 13-14). The President calls the attention of members to this information. Too much of the time of the Secretary is taken up in replies to needless questions—needless because the information asked for has been published for the use of the members, and should be kept for reference. Sir S. Stockman makes the same complaint for the Board's staff—they "are inundated with questions." It is weary work trying to help those who will not help themselves.

Two other items occur in the report of the Parliamentary Committee. The definition given in several official notices in South Africa (Nov. 10, p. 191)—"Veterinary Surgeon" shall mean and include the G.V. Surgeon or Inspector of Stock or if no such appointment has been made, the magistrate"—has been cancelled. And a draft of the V.S. Bill for S. Africa has been referred to a small but effective Committee to draft a report and suggested reply.

## POISONING BY ACACIA LEAVES IN HORSES.

Scholz observed numerous cases of poisoning, which were afterwards proved to be due to the ingestion of acacia leaves, in the horses of an ammunition column operating in Roumania. The animals were being fed upon a mixture of oats, bran, and maize.

The first case was a horse which, immediately after returning from the firing line, showed very serious colic. He threw himself upon the ground, and had cold sweats. The temperature was 98.2° F.; the pulse was 80, and scarcely perceptible. Despite treatment by caffeine and rubbing, the animal died in convulsions.

The same morning, two heavy Belgian horses became ill. One, the second animal in the series of cases, stood with the limbs apart, the head low, the eyes half-closed, and covered with sweat. As the surrounding temperature was 100.5° F. in the shade, the case was diagnosed as heat stroke. Cold packs were applied upon the head and the whole body, and caffeine was administered. This treatment was followed by a transient improvement; but after five hours the horse became so much worse that slaughter was decided upon.

The second Belgian horse was very agitated, and passed small quantities of normal faeces at short intervals. Rectal exploration showed that some parts of the intestine were full. Palpation of the abdomen revealed pain. Morphine was administered, and hot packs were applied. This treatment seemed to be efficacious; for the animal became calm, and recovered in a few days.

At the same time, notice was received of a fourth case. A horse, while returning from the firing line, became affected with symptoms similar to those of the first case. This animal threw himself to the ground, where he died after a brief death-agony.

Three other cases occurred during the afternoon. In one—the fifth case—symptoms like those of the first and second cases were seen, with the addition of great restlessness. The sixth and seventh cases had very pronounced lumbar pains, but recovered quickly; while the fifth case died during the night.

In the same night a grave case of colic appeared in a saddle horse. This eighth case was treated with morphine, arcoline, etc., but, notwithstanding an apparent improvement, died the next morning.

The first, fourth, fifth, and eighth cases all showed the same post-mortem appearances—viz., intestinal inflammation, parenchymatous degeneration of the liver, kidneys, and heart, hyperæmia of the lung, and slight swelling of the spleen. These lesions, together with the symptoms presented, caused



forage poisoning to be thought very probable. At first it was thought that the bran might be the cause; but this hypothesis was quickly discarded, as there had been no change in the supply, and no trouble had been seen in the other animals whose food was provided from the same source. It then became known that cases of poisoning by acacia leaves had previously occurred in the locality where the column was staying. As the intestines of the fifth and eighth cases were not yet destroyed, their contents were examined, and it was found that the dense faecal mass contained numerous fine stems, partially ligneous, and also some acacia leaves still intact. Upon re-examining the histories of the cases, it was proved that the cases of poisoning were verified exclusively in horses which had been tied to acacia trunks or near acacias, while no trouble had occurred in those which had bivouacked under fruit trees or in the open country. From that time forward the attention of the men was drawn to the toxicity of acacia leaves, and the horses were prevented from eating them; and no more cases of poisoning occurred.—*La Clinica Veterinaria*.

#### THE APPARENT CLOSURE OF THE CERVIX UTERI IN CERVICITIS.

Prof. W. L. Williams, during the clinical demonstration upon sterile cows which followed his paper on Contagious Abortion before the American V.M.A. last August (*vide V.R.*, Dec. 29, 1917, page 260), made some remarks upon this subjects. Formerly veterinarians talked much of the "closure of the os uteri," or "closure of the womb;" but Williams considers that atresia of the cervical canal in cows is essentially fiction. As a congenital condition it exists rarely, along with the general arrest in the sexual development. Speaking generally, the cervical canal is open and passable; but penetration is rendered more or less difficult by the anatomical arrangement of the cervix. The difficulty is further and greatly intensified by disease. The circular folds of the cervical mucosa with their margins directed outwards, towards the vagina, cause the catheter or sound to be deflected and lodged in a *cul de sac* behind the folds, instead of following the cervical canal, which perhaps bends abruptly in some direction. In cervicitis (and when metritis is marked, the pus passing out through the cervical canal inevitably causes cervicitis) the bases of the circular folds become enlarged and sclerotic. The sclerotic mass pushes from one side and bends the cervical canal out of a straight line, sometimes as much as two inches. The veterinarian who is ignorant of these facts concludes that the canal is "closed," erroneously thinks that force is justified and demanded, and applies it with disastrous results. In mentioning the matter, Williams emphasised the grave danger of undertaking modern veterinary obstetrics without sufficient study of its details.—(*Journal of the American V.M.A.*)

W. R. C.

## Royal College of Veterinary Surgeons.

### MEETING OF COUNCIL.

A meeting of the Council was held at the College, 10 Red Lion Square, London, W.C., on Friday, July 5th. Present: Mr. F. W. GARNETT, C.B.E., J.P., President, in the Chair; Sir John M'Fadyean, Maj.-Gen. Blenkinsop, D.S.O.; Maj.-Gen. Thomson, C.B.; Messrs. J. Abson, Banham, Barrett, Carter, Coleman, Dunstan, Gaiger, Howard, Lawson, McCall, McKinna, Mulvey, Packman, Share-Jones, Slocock; Sir Stewart Stockman; Messrs. Sumner, Trigger, Wharam, Wilson; Mr. G. Thatcher, Solicitor; Mr. F. Bullock, Secretary.

*Minutes.* The minutes of the previous meeting of Council, on July 6th, 1917, having been printed and circulated, were taken as read, and confirmed.

### ELECTION OF OFFICERS.

*President.* Sir J. M'FADYEAN: I rise with a sense of duty, but also with pleasure, to move that we elect Mr. Garnett to the Presidential chair for the ensuing year. It may have occurred to some of you that special arguments ought to be adduced to justify a proposition that any member of the Council should be elected for the fifth time to fill the Presidential chair. There is no difficulty in finding special reasons for such a course, because we live in highly exceptional times. In pre-war times the duties of the President of the College were far less onerous than they are at the present time, when matters of the very greatest importance to the welfare of the profession in connection with the conduct of the war and what is called the period of reconstruction after the war, are constantly arising. I venture to say that there is no member of this Council who has these matters at his finger ends as has our President. This is not a case of conferring an honour on Mr. Garnett. I therefore propose that he be re-elected because I am perfectly satisfied that he cannot be changed without detriment to the interests of the profession at the present time.

Mr. R. C. TRIGGER: As one of the senior members of Council, I have very great pleasure in seconding the nomination of Mr. Garnett for the Presidential chair. I quite agree with the proposer that this is in no sense conferring a compliment on Mr. Garnett. We are asking a very great favour of him in asking him to give us his valuable time and services, considering the unmeasured strength he has been to us during the past year. He has guided the ship during the past few years and he has taken us through very difficult times in a manner which could not have been surpassed by any other member of the Council. I have had the privilege of sitting on the Council for 28 years, and it has been my pleasure to sit under Mr. Garnett during the last few years, and I venture to say that never in all these years has the business of the Council been conducted in a better or more able or more efficient manner, and that in the most strenuous times, and I think the least we can do is to ask the Council to re-elect Mr. Garnett, and at the same time to thank him for the great services he has rendered us. I have very great pleasure in seconding the nomination.

Mr. J. H. CARTER: I wish to support that proposal, and I ask those in favour of the motion to hold up one hand.

The motion was carried unanimously.

The PRESIDENT: Sir John M'Fadyean and gentlemen, the present, perhaps, is the proudest moment of my life, to think that I have retained your confidence for a period of five years, and you have elected me for another

period of work. I can only thank you most heartily and I trust, with your help, that I may be able to carry out during the coming year the work that will fall upon me.

*Vice-Presidents.* Dr. J. McI. McCall and Mr. J. McKinna were unanimously re-elected Vice-Presidents.

*Treasurer.* The PRESIDENT: I do not think I need mention who our Treasurer is or who is going to be our future Treasurer, because I feel it is the unanimous wish of all to re-elect our present one, Mr. Mulvey. I hope he may live long to occupy that position.

The motion was unanimously agreed to.

*Secretary and Registrar.* On the motion of the President, Mr. Fred Bullock was unanimously re-elected Secretary and Registrar.

The meeting then terminated.

#### QUARTERLY MEETING OF COUNCIL.

A quarterly meeting of Council was held immediately following the ordinary meeting. Mr. Garnet, President, occupied the chair, and the same members were present at the other meeting.

*Minutes.* The minutes of the previous meeting of Council having been printed and circulated, were taken as read, and confirmed.

*Apologies for absence.* The SECRETARY announced that apologies for absence had been received from the following members: Mr. J. W. Brittlebank, Dr. O. C. Bradley, Mr. J. Clarkson, and Mr. T. S. Price.

*Obituary.* The SECRETARY read the Obituary list.

*Correspondence.* There was no correspondence.

*Right of way.* The SECRETARY announced that, in accordance with custom, he passed through the College building into Yorkshire Grey Yard on June 22, and on several other occasions during the year to maintain the right of way of the College through the yard.

#### REGISTRATION COMMITTEE.

The following report of the meeting of the Registration Committee, held on Thursday, July 4, was read and adopted:—

An application for restoration to the Register was received from Mr. L. Crook (a member whose name had been removed under Section 6), accompanied by testimonials. It was resolved to recommend that, subject to confirmation from the officer in charge of Records A.V.C. as to this member's conduct while in the Army Veterinary Corps, that his name be restored to the Register of Veterinary Surgeons.

The President reported that Mr. Sewell's appeal against the decision of the Council in the removal of his name from the Register had been dismissed by the Privy Council. Further complaints were received, but it was resolved that no action be taken for the present.

Nine other cases were considered by the Committee. Two were adjourned for further evidence; in another, an undertaking was received; in a fourth, it was reported that the offence complained of had been discontinued; and in the case of a non-member using title, it was resolved to recommend that a prosecution be instituted if sufficient evidence was available.

The Solicitor reported that Mr. J. R. Welsby, member, had been convicted of a felony and sentenced to twelve months imprisonment with hard labour. It was resolved that Mr. Welsby be called to attend the meeting of the Committee in April, 1919, to show cause why his name should not be removed from the Register.

Correspondence was submitted, and the Secretary was instructed as to the replies to be sent.

The SECRETARY announced that, since the meeting of the Committee, he had received a letter from General Blenkinsop, who said he had enquired as to the character of Mr. L. Crook and found it was very good.

On the motion of the President, the names of D. Sinclair, W. Gardner, B. M. Gunn, and L. Crook were restored to the Register; and, on the motion of the President, the name of W. J. Moran was removed from the Register.

Authority was given for the Seal of the College to be affixed to two prosecutions, if the Solicitor was satisfied with the evidence brought forward.

#### FINANCE COMMITTEE.

The following report of the meeting held on Friday, July 5th, was read and adopted:—

*Financial Statement.* The Treasurer submitted his financial statement for the quarter, showing a balance in hand of £156 16s. 5d., and liabilities amounting to £220 15s. 5d.

It was resolved: That the financial statement be adopted, and that the Treasurer be ordered to pay the liabilities shown, together with cheques for monthly salaries, Examination expenses, gas, electric light, and petty cash.

*Appointment of Clerk.* The Treasurer reported that he had interviewed several applicants for the vacant clerkship, and had appointed Miss K. C. Blake at a salary of 45/- per week.

It was resolved: That the appointment of Miss Blake at the salary named be approved, and that Mr. Mulvey be thanked for the trouble he had taken in the matter.

*Voluntary subscriptions.* The Secretary reported that the sum of £198 16s. 5d. had been received during the quarter in voluntary subscriptions.

*Auditors' fee.* An application was received from the Auditors for an increase of fee.

It was resolved: That the Auditors' fee be increased to sixteen guineas per annum, this amount to be an inclusive fee.

*Adjoining site.* A report was received from the Solicitor with regard to the condition of the adjoining site and building.

It was resolved: That no further action be taken.

Mr. W. J. MULVEY: The financial statement this time is somewhat more favourable to us on the face of it. It shows a balance in hand of £156, but we have to set against that certain payments which will be made before the next meeting of the Council which will clear off the balance that we now hold. I want first of all to say how much the Council appreciate—and I am sure they do—the way in which the individual members of the profession have come forward with their subscriptions. Had it not been for that we should have collapsed. I am drawing your attention to this for the reason that I am hoping that the subscriptions will be increased. As you know, the conditions are such that we cannot hope for any amount to be received from the examinations of students, our old source of income. That being so, and as we require between £1200 and £1300 a year for establishment expenses to carry on the work of the College, I hope that in the coming year the subscription will not only be continued but greatly increased. This year we hope they will amount to about £1000. In the near future we must have more, and if we do not have more we cannot carry on the work that we have been doing for so many years.

#### EXAMINATION COMMITTEE.

The following report of the meeting held on Thursday, July 4th, was read and adopted:—

*Correspondence.* A letter (4/6/1918) was received from Mr. Finlay Kerr, suggesting that the written examination in July should be held on the first Monday in the month.

It was resolved: That the Secretary be instructed to reply that the Committee is unable to accede to the suggestion.



**Fellowship Examination.** The Secretary reported that at the Fellowship Examination held on 11th May, three candidates entered, but only one was able to be present, namely, Mr. C. S. Hunting. This candidate was successful. The other two candidates, being on active service, were unable to get leave of absence.

It was resolved: That the examination fees paid these cases be held over until the next examination at which the applicants are able to attend.

**Summer Examination arrangements.** The Secretary reported that the following temporary appointments to the Examining Board had been made by the President:—

Chemistry and Physics—Class A: Dr. J. C. Withers, Ph.D., to act in place of the late Mr. D. S. Jardin.

Biology: Dr. E. J. Schwartz in place of Dr. Bottomley, unable to act on account of illness.

Pathology and Bacteriology—Class C: Dr. W. Bulloch to act as Examiner in London, and Dr. J. Miller to act as Examiner in Edinburgh in place of Dr. McWeeny, who is unable to act elsewhere than in Ireland.

**Educational Certificates.** Educational Certificates Nos. 1706 to 1709 were submitted and approved.

(b) That the following be added to the list of recognised examinations:—

Board of Education "Recognised Examinations" for Secondary Schools:

*As First Examinations—*

1. School Certificate Examination of the Oxford and Cambridge Schools Examination Board.
2. Senior Local Examination, Oxford.
3. Senior Local Examination, Cambridge.
4. Senior Certificate Examination, Bristol University.
5. First School Certificate Exam., Durham University.
6. General School Examination, London University.
7. School Certificate Exam., Northern Joint Board.

*As Second Examinations—*

8. Higher Certificate Examination, Oxford and Cambridge Schools Examination Board.
9. Higher School Certificate Examination, Oxford.
10. Higher School Certificate Examination, Cambridge.
11. Higher School Certificate Exam., Bristol University.
12. Higher Certificate Exam., Durham University.
13. Higher School Certificate Exam., London University.
14. Higher Certificate Exam., Northern Joint Board.

Certificates on Form A, granted on the results of the above examinations are recognised without condition as to subjects. Certificates on Form B are recognised provided the required subjects (English, Mathematics, and two languages) are included.

**Applications from ex-officers and men.** Applications were received for relaxation of the requirements in regard to the Preliminary Educational Examination, from certain ex-service officers and men.

It was resolved to recommend: (a) That each application for a relaxation of the conditions of entry into the profession be considered on its merits. (b) That the certificate of Mr. G. S. Unsworth be approved. (c) That in the cases of Mr. A. D. McEwen, E. W. Allonby, G. Ridley, and G. F. Langford, the Secretary be instructed to reply that the Committee were prepared to accept certificates in general education granted by one of the Examining Boards at any time previous to the date on which the candidate desires to present himself for the first Professional Examination. (d) That the certificate of Mr. W. E. Edge be accepted as qualifying him in respect of general education. (e) That the applications from Messrs. J. Hill, R. O. Rees, R. Winwood, and S. Ghose be not acceded to.

**RESETTLEMENT OF OFFICERS IN CIVIL LIFE.**

The PRESIDENT reported that on April 25 he attended on the Minister of Labour and submitted a scheme for the establishment of a Joint Committee consisting of representatives of the Ministry of Labour, the R.C.V.S.,

and the War Office, to deal with the resettlement of Veterinary Surgeons now on active service in civil life after demobilisation. The scheme was favourably received, subject to the addition of a representative of the Ministry of Pensions on the Joint Committee.

It is understood that the Ministry of Labour will shortly nominate an Appointments Committee to whom the scheme will be submitted.

On April 26 the President, with the Chairman of the Examination Committee, attended a Conference at the War Office, when details of the scheme were discussed. The President afterwards addressed a letter to the Ministry of Labour urging that a representative of the Veterinary Profession should be appointed on the General Committee dealing with the resettlement of Officers after the war.

It was resolved: That the President for the time being be appointed to represent the Veterinary Profession on the General Committee appointed by the Ministry of Labour to deal with the resettlement of Officers after the War.

**VETERINARY STUDENTS AFTER THE WAR.**

The Committee consider that financial assistance will be required by two classes of students:—

1. Registered Veterinary Students whose studies have been interrupted while on active service. Many of these will, without financial assistance, be unable to complete their training.

2. Discharged officers and men who wish to enter the Veterinary Profession, but whose means are insufficient to enable them to undertake the four years course required for qualification.

It was resolved to recommend: That a Sub-committee consisting of General Blenkinsop, Prof. Gaiger, Mr. Garnett, Mr. Mulvey, and Mr. Sumner be appointed to consider the question and to report to the next meeting of the Committee.

**WAR EMERGENCY COMMITTEE.**

The following report of meeting held on Thursday July 4th, was read and adopted:—

**Calling up of Veterinary Students.** The Secretary reported that by Proclamations of April 20 and June 4, all veterinary students between the ages of 18 and 23 who had hitherto been exempted from Military service were now liable to be called up if over Grade III. He had, however, been able to make arrangements with the Ministry of National Service that the calling up notices in respect of students due for the July Examinations should be postponed until after July 13.

**Exemption of Veterinary Surgeons.** The President reported that he had received a letter from the President of the Central Veterinary Society containing a resolution passed by the Society with regard to the formation of an Advisory Committee to deal with the cases of Veterinary Surgeons of military age. This resolution had been forwarded to the Ministry of National Service by the Society, and a negative reply had been received. The President stated that negotiations for the establishment of a Veterinary Tribunal had been in progress for some months past.

It was resolved: That the President be authorised to reply to the President of the Central Veterinary Society and that the President of the College be requested to continue the negotiations now in progress.

**Correspondence.** J. M. Armfield. A letter (8/6/1918) was received from the Committee on work of National Importance asking whether in the opinion of the Committee work as an assistant to a member of the College could be considered as of sufficient national importance, and the Secretary was instructed to reply in the affirmative.

The PRESIDENT: There is one part of these minutes that I want to draw your special attention to, and that

is with regard to the letter from the President of the Central Society. The action of that Society, in my opinion, was very hurried and ill-considered, and the reply that they have received from Sir Auckland Geddes has practically killed the scheme that we had in hand. It was hoped, with every prospect of success, that, had not this action been taken, we should have been able to establish a tribunal for the veterinary profession as a whole, and to that tribunal all cases which are now dealt with by local tribunals and appeal tribunals would have been referred in the same way that such cases are referred in the case of barristers and solicitors, and the dental and medical professions. Departments, however, are like human beings; they have very sensitive consciences, and once a Department has taken up a negative attitude to any question, as has been done in this case, it is extremely difficult, in almost any circumstances, to get them to reverse it in the near future, so that any hope that we had—and we had every prospect of carrying it to a successful issue—has been broken down entirely by this precipitate and ill-considered action of the Central Society. I deplore it extremely, because, in my opinion, it would have been to the benefit of the whole profession had we been able to carry that thing through. I hope that an opportunity may arise whereby we can see a way to again approach the Ministry to reconsider the whole question; but my own opinion is that at the present moment it would be fatal to re-open the question with a view to getting the Department to change their considered opinion.

Sir JOHN M'FADYEAN: Is there any explanation as to why they adopted this step instead of sending the matter to the Council?

The PRESIDENT: There is nothing, except that they have sent a letter to the Ministry, and have received the reply from the Ministry.

Sir S. STOCKMAN: Is there any precedent for any one Society coming along and presuming to represent the whole profession?

The PRESIDENT: No, I do not think so. We cannot deal with them at all; but it is not in the interests of the profession to approach public bodies except through the Governing Body.

Mr. W. J. MULVEY: Has any reply been sent to the President of the Central Council?

The PRESIDENT: No. The report of the Committee directs me to reply.

Sir JOHN M'FADYEAN: I am not at all sure that it would not have met the actual circumstances if the decision of this Council had been that the communication of the Central Society should lie on the table and that the President of the Central Society be referred to the report of this Council meeting for information as to the view which the Council takes with regard to the action of the Central Society. I throw this out as a suggestion.

Mr. GAIGER: Would it not be as well to point out in what way a Central Tribunal would be any advantage over the system of local tribunals. Would it be an advantage to the profession?

The PRESIDENT: I think it is obvious to everybody that it would be an advantage, in dealing with all these regulations, that we as a profession should review all the requirements, both of agriculture and the needs of the army and the different departments employing veterinary surgeons throughout the country, instead of each local tribunal viewing it from the local standpoints. We should view it from the National standpoint. Another object we had in view was that there were certain veterinary surgeons, then not of military age, who had no call upon them whatever, but who patriotically gave up their practice and have served in the forces practically since the beginning of the war to the present time. I have letters from several of these men who want to

come back to their civil practices; having done a good share of service they think that they should be shown some consideration, and we might find a means of relieving them and letting them return to their practices by being able to substitute men of Grade 1 who are fit for overseas duty. In every way that I looked upon it I thought it would be a great benefit to us to have our own Tribunal.

Mr. J. T. SHARE-JONES: I take it from the last item in the report on this matter that the negotiations will be resumed, and that at what will be considered the opportune time a further report will be made to the War Emergency Committee as to the success or otherwise of these negotiations?

The PRESIDENT: That is so. A favourable opportunity will be taken, but at the present moment we are losing time.

#### PARLIAMENTARY COMMITTEE.

The following report of the meeting held on Thursday, July 4, was read and adopted:—

*Fire damage in office and repairs.* The Secretary reported that a fire occurred in the office in the afternoon of Saturday, April 6, and that damage had been done to the walls and to certain furniture, but no important document had been destroyed. The full amount claimed had been paid by the Insurance Societies, and the necessary repairs had been carried out.

*Veterinary Surgeons and Income Tax.* A letter (31/5/18) was received from the Midland Counties Veterinary Medical Association, making enquiries in regard to the effect of the new Finance Bill on the Income Tax payable by veterinary surgeons who would rent accommodation land. The Secretary was instructed to reply that the matter was not one in which the Council could interfere.

*Veterinary Surgeons Bill for South Africa.* A draft of the Veterinary Surgeons Bill for South Africa was received from Col. J. Irvine Smith, with a request for the support of the Council.

It was resolved: That the matter be referred to the Chairman of the Committee, Dr. Bradley, Mr. Garnett, and Sir John M'Fadyean to draft a report and suggested reply to be submitted to the Committee at its next meeting.

*Definition of "Veterinary Surgeon" (Transvaal).* A letter was received from Col. J. Irvine Smith, stating that the definition of Veterinary Surgeon to which objection had been raised had been cancelled.

*Supplementary rations.* The Secretary had reported that he had received the following letter from the Ministry of Food:—

Ref. Li4/23480. Ministry of Food,  
Grosvenor House, W. 1.  
The Secretary, R.C.V.S., 12th April, 1918.  
10 Red Lion Square, W.C. 1.

Sir,—I am directed to acknowledge the receipt of your letter of the 11th inst., and to inform you that Veterinary Surgeons are included in the list of those persons entitled to the Supplementary Ration. They will be graded under Class "D."

I am to add that any further enquiries on this subject should be addressed to your Local Food Office.

I am, your obedient Servant,  
(Signed) J. S. LEAVER,  
Supplementary Ration Section.

*Turpentine Supplies.* The Secretary reported that, having received complaints from members that they were unable to obtain supplies of Turpentine, he had had an interview at the Mineral Oil Production Department of the Ministry of Munitions of War, and had in consequence received the following letter from the Assistant Controller of Supplies:—

29th June, 1918.

Sir,—I am directed to inform you, with reference to your visit yesterday, that this Department considers the supplies of Turpentine to V.S. as a matter of National importance, and every effort shall be made to ensure their requirements being satisfied.

All suppliers to whom licences are issued for Domestic purposes—apart from actual Government requirements or other essential purposes covered by priority certificates—must give preference to medicinal supplies, over any other orders received. Should supplies to your members be refused when stock is available in the hands of the sellers, the circumstance can be reported to this Department, when the licence which has been issued will be subject to revision and arrangements made to issue certificates to suppliers who will see that the needs of the V.S. are properly met.

You are at liberty to make what use you like of this letter, either by circulating a copy of it amongst your members or showing it to any distributors of Turpentine who may decline to consider the claims of your Society.

I am, Sir, your obedient Servant,  
(Signed) F. HOUGHTON FREY,  
Assistant Controller (Supplies).

The PRESIDENT: In proposing that the report be received and adopted, I wish to draw the attention of those members of the profession who may be in need of a supply of turpentine and the steps that they have to take. Over and over again we get matters of importance to the profession put in order, but apparently no notice is taken of what has been done, and the Secretary is inundated with enquiries on the same point over and over again. By noting these things as they crop up at the time the profession can save not only themselves trouble, but a considerable amount of trouble to Mr. Bullock.

Sir JOHN M'FADYEAN: I should have thought that the publication in full of the proceedings of this Council in the professional Journals would be sufficient intimation to all professional gentlemen. A member of the profession who reads no professional journal hardly requires retaining in the profession.

Sir STEWART STOCKMAN: On the other hand, I can assure you that we as a Board are inundated with questions on some of the matters that have been settled by this Council,

#### PUBLICATION, LIBRARY, AND MUSEUM COMMITTEE.

The following report of the meeting held on Friday, July 5th, was read and adopted:—

*Presentations to Library.* The Secretary reported that since the previous quarterly meeting the following presentations had been made to the Library.

Annual Reports: Board of Agriculture, Proceedings under Diseases of Animals Acts; Board of Agriculture for Scotland, 1917; Lister Institute of Preventive Medicine, 1918; National Veterinary Medical Association, 1917; County of Lanark, Veterinary Inspector, 1914-18; Zoological Society, 1917; Ceylon, Government Veterinary Surgeon, 1917; Bengal Veterinary College, and C.V.D., Bengal, 1916-17; Bombay Veterinary College, and C.V.D., Bombay, 1916-17.

Vicious Circles in Disease, J. B. Hurry, M.A., M.D.; The Vicious Circles of Neurasthenia and their Treatment, *ibid*; International Veterinary Congress, Baden Baden, Vol. II of Report (presented by Mr. G. H. Locke); Digestion of Starch by the Young Calf, R. H. Shaw, T. E. Woodward, and R. P. Norton; Efficacy of some Anthelmintics, M. C. Hall and W. D. Foster; Some Common Disinfectants, M. Dorset; Cattle Lice and how to eradicate them, Marion Imes; White Snakefoot or Richweed (*Eupatorium Urticæfolium*) as a Stock-poisoning Plant, C. D. Marsh and A. B. Clawson; Tuberculosis in Carnivorous Animals, W. Reid Blair.

*Journal of the Board of Agriculture and Fisheries; also Leaflets and Orders; Journal of the D.A.T.I.; Journal of Comparative Pathology and Therapeutics; Revue de Pathologie Comparée; Journal of Physiology (per Maj.-Gen. Sir F. Smith); Rhodesia Agricultural Journal; New Zealand Journal of Agriculture; Journal of Department of Agriculture, Victoria, Melbourne; Bulletin of the Central Veterinary Medical Association, Tokyo; The Bloodstock Breeders Review; The Veterinary Review; The Veterinary Journal; The Veterinary Record; The Veterinary News; The British Medical Journal (per Dr. Bradley); The Educational Times.*

Sir S. STOCKMAN: What do we do with these publications?

The PRESIDENT: They are all catalogued and kept.

Sir S. STOCKMAN: The main thing which occurs to me is that a particularly valuable list has been read out, but some of them are not worth keeping over a year. Do we bind them?

The PRESIDENT: No, they are not bound.

Sir S. STOCKMAN: We should have some system of going through them and selecting those we should throw away and those we should keep.

The PRESIDENT: Mr. Bullock does his best when he puts them away and catalogues them. You may refer it to the Library Committee. There was a clean out a few years ago. They are not bound, but they are all put into cases and catalogued.

*Register Advertisements.* A copy for a proposed advertisement in the *Register*, 1919, was submitted, and, with a slight amendment, was approved.

#### SPECIAL COMMITTEE ON VETERINARY STAFF SALARIES.

The following report of the meeting held on Friday, July 5th, was read and adopted:—

*D.A.T.I. Staff Salaries.* Correspondence between the President and the Department of Agriculture and Technical Instruction of Ireland in regard to salaries of the Veterinary Officers was read and the reply of the President was approved.

#### APPOINTMENT OF STANDING COMMITTEES FOR THE YEAR.

*Registration Committee.* It was formally resolved that the Registration Committee should be composed of the whole Council.

*Examination Committee.* Messrs. Bradley, Brittlebank, Coleman, Dunstan, Gaiger, Gofton, McCall, M'Fadyean, McKinna, Mulvey, Share-Jones, Shave, Slocock, Stockman, Sumner.

*Finance Committee.* Messrs. Abson, Blenkinsop, Bradley, Carter, Clarkson, Howard, Lawson, McKinna, Mason, Mulvey, Packman, Sumner, Trigger, Wharam, Wilson.

*Parliamentary and General Purposes Committee.* Messrs. Blenkinsop, Bradley, Brittlebank, Carter, Clarkson, Dunstan, Lawson, McCall, M'Fadyean, McKinna, Mulvey, Slocock, Stockman, Sumner, Trigger.

*Annual Fee Committee.* Messrs. Barrett, Blenkinsop, Bradley, Carter, Gofton, M'Fadyean, Mason, Mulvey, Packman, Sumner, Thomson, Trigger.

*Publication, Library and Museum Committee.* Messrs. Abson, Bradley, Burt, Coleman, Dunstan, Gaiger, McCall, M'Fadyean, Mulvey, Price, Share-Jones, Shave, Slocock, Stockman, Wharam, Wilson.

*Honours and Prizes Committee.* Messrs. Abson, Banham, Bradley, Brittlebank, Gaiger, Gofton, Lawson, M'Fadyean, McKinna, Mulvey, Packman, Share-Jones, Stockman, Sumner, Trigger.

*War Emergency Committee.* Messrs. Abson, Blenkinsop, Bradley, Coleman, M'Fadyean, Mulvey, Price, Share-Jones, Slocock, Stockman.

## AUDITORS.

On the motion of Mr. W. J. Mulvey, it was decided to re-appoint Messrs. Waterhouse and Wilkinson Auditors at an inclusive fee of 16 guineas per annum.

## DATES OF COUNCIL MEETINGS AND EXAMINATIONS.

The following dates for Council and Committee Meetings, and Examinations were fixed:—

*Committee and Council Meetings.*

1918. October 3rd and 4th.

1919. January 9th and 10th; April 9th and 10th; July 3rd and 4th. Annual Meeting, June 4th.

*Examinations.*

1918. Dec. 13th, Written; Dec. 17th, Oral.

1919. July 7th, Written; July 8th, Oral.

Fellowship, May 10th.

## NOTICE OF MOTION.

Mr. W. J. MULVEY gave notice that at the next meeting of Council he would move that Bye-law 62a be altered to read as follows:—

(1) "A student who has obtained a degree in arts, science or medicine, or a degree or diploma in agriculture granted by a University situate within the United Kingdom, or by the Joint Examining Board of the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland, or by any other body whose degree or diploma in agriculture is approved for the time being by the Council on the recommendation of the Examination Committee, or the diploma of licentiate of one of the Royal Colleges of Surgeons, or of one of the Royal Colleges of Physicians, and who in procuring any such degree or diploma passed an examination in chemistry and also in biology, zoology or botany, shall be exempted from his A or first professional examination and the by-laws and regulations in respect thereof, and shall be entitled in all respects to the rights and privileges which the passing of such examination ordinarily confers, provided always that such student so exempted shall be examined in the whole subject of chemistry in the class B examination."

(2) "A student possessing a degree or diploma of a like import or denomination to one of those enumerated in paragraph (1) hereof, but granted by a university or other examining or licensing authority, other than those mentioned in paragraph (1) shall, if the Council declare its sufficiency for exemption, thereupon become entitled in all respects to such exemptions, rights and privileges as are defined in paragraph (1) of this by law. In any other special circumstances arising in connection with the war, exemption under this by law may also be granted by the Council on the recommendation of the Examination Committee."

Mr. J. T. SHARE-JONES: On the minutes of the last Council meeting it is set forth that Mr. Mulvey gave notice that he would move at this meeting certain amendments to the regulations. I gather from what he has just said that he does not intend now to do that.

Mr. MULVEY: Certain alterations have to be made—

Mr. SHARE-JONES: It is practically moving an amendment to the motion he has already given notice of.

Mr. MULVEY: No, that motion has been withdrawn.

Mr. SHARE-JONES: No, it has not been withdrawn.

The PRESIDENT: The effectual thing is the notice board.

Mr. SHARE-JONES: It is a question of procedure.

Mr. MULVEY: There is no notice on the notice board. It has been taken down and it obviously falls through.

Mr. SHARE-JONES: I desired to move an amendment to the motion of which you had already given notice. I take it that this present motion will be circulated to us before we meet next time in the usual way.

The PRESIDENT: It will be on the agenda for the next meeting.

Mr. MULVEY: It will be suspended on the notice board for three months, that is the official intimation.

Mr. SHARE-JONES: It appears to me to be out of order to give notice of a motion last time and to move another motion this time and that it should not have been printed and circulated with the minutes for this meeting. I had intended to move an amendment and I still wish to move an amendment to the one that has been read to-day.

Mr. BARRETT: May I point out that you may be in a difficulty because there can be no alteration of a motion three months hence. Therefore, I suggest to Mr. Share-Jones that if he requires a modification of the motion he ought to give notice that day of it in order to comply with the by-laws.

Mr. SHARE-JONES: I gather from what has been said that I shall be in order at the next meeting in moving an amendment?

Mr. MULVEY: Yes, I am simply giving notice of what is going to take place at the next meeting.

Mr. SHARE-JONES: At the same time it seems to me that Mr. Barrett is right and that I shall be ruled out in three months time from moving an amendment to Mr. Mulvey's motion.

Mr. BARRETT: I only desire to point out that on several occasions you, Mr. President, have held, and I think rightly, that there can be no amendment proposed, and unless you reverse your previous ruling Mr. Share-Jones will find himself in a difficulty at the next meeting.

Mr. MULVEY: May I point out that there is nothing before this meeting. I have not moved this motion, and so Mr. Share-Jones is not called upon to move an amendment. The motion of which I gave notice last time was taken down from the Board because it was found not to be in order.

Mr. SHARE-JONES: But has Mr. Mulvey had permission to withdraw the motion of which he gave notice last time?

The PRESIDENT: You are quite out of order, Mr. Share-Jones; this motion is not on the agenda for this meeting.

*New Members.* The PRESIDENT: In your name I should like to welcome to this Council two new members—General Blenkinsop and Prof. Gaiger. I am sure we shall benefit from their counsels.

*Vote of thanks.* A cordial vote of thanks was passed to the President, and the meeting terminated.

## ARMY VETERINARY SERVICE

War Office, July 6.

The following Officers have been brought to the notice of the Secretary of State for War for valuable services rendered in connexion with the War:—

Maj. (temp. Lt.-Lt. Col.) F. S. H. Baldrey, F.R.C.V.S., R.P.; Temp. Maj. J. W. F. Brittlebank; Temp. Lieut.-Col. H. W. Pitchford; Lieut.-Col. (temp. Col.) G. M. Williams.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, July 4.

## REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Capt. E. G. Robertson relinquishes his commission on acct. of ill-health (July 5).

To be temp. Lt.:—A. J. Moffett (June 15).

July 5.

Col. (hon. Maj.-Gen.) L. J. Blenkinsop, D.S.O., to be Maj.-Gen. (Apr. 24).

July 8.  
Capt. A. M. Howie, from S. Afr. Vety. Corps., to be  
temp. Capt. (June 22, sen., Nov. 6, 1914).  
To be temp. Lt.:—W. S. Mackintosh (June 18).

July 10.  
Lt.-Col. (Bt. Col.) F. W. Hunt, C.M.G., to be actg. Col.  
whilst holding appt. of D.D.V.S. (May 26).

The following casualty is reported:—

WOUNDED—Capt. N. V. James, atttd. R.F.A.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

Horace Jewell, Capt. A.V.C.				
1914, 1915, 1916, 1917, 1918	£5	5	0	
W. F. Maynard, Romsey	1	1	0	
Frederick C. O'Rorke Major A.V.C.	1	1	0	
John L. Orr, Strabane	1	1	0	
Previously acknowledged	889	10	5	
	£897	18	5	

#### A judgment on the use of Motor Cars.

In Ayr Sheriff Court, Sheriff-Substitute Broun gave his judgment in four cases against four well-known farmers, all in the parish of Kirkoswald, near Maybole, charged with having used petrol or petrol substitute on a journey between their farms and Ayr, for the purpose of driving motor cars, contrary to the Motor Spirit (Consolidation) and Gas Restriction Order, 1918. The defence was that the petrol was used for business purposes to enable them to attend Ayr market. One of the main contentions for the prosecution was that the respondents could motor from their farms to Maybole, the nearest railway station, and thence get the train to Ayr, but the respondents contended that by travelling by motor they saved time in the morning and in the afternoon amounting to about three hours.

In holding the respondents not guilty, the Sheriff-Substitute pointed out that the farmers only travelled once a week, and only maintained that they were entitled to do so once a week. The time saved by the farmers was to be taken into account, and was very

important. People on the land were asked to do all they could to increase food production, yet here were farmers losing valuable time if the prosecution succeeded. By using the motor car the farmer was left unfettered as regarded time. There were unexpected accidents at farms, cattle and horses falling ill and requiring attention, and if the respondents were tied down to taking the train on all these occasions they could not look after them. It was not a very important point that the use of the motor car enabled them to do necessary shopping in Ayr, but possibly a farmer had to be there to get things he wanted to see first of all. If it had been a case of their going daily to Ayr he would possibly have given another decision, but in the whole circumstances it was reasonable that they should go by motor and not by train.—*The Scottish Farmer*.

#### Personal.

Capt. J. W. RIDDOCH, M.B., CH.B., R.A.M.C., who has been awarded the Military Cross, is the only son of Mr. John Riddoch, M.R.C.V.S., 7 Glengyle Terrace, Edinburgh, one of the Edinburgh veterinary officers. Capt. Riddoch was educated at George Watson's College, and is a graduate of Edinburgh University. He has been three years in the East.

#### OBITUARY.

THOMAS SKILTON, M.R.C.V.S., Epsom.

Graduated. Lond: March, 1880.

Mr. Skilton died 5th July, 1918, aged 61.

#### ARGENTINA AND THE EXPORT OF PEDIGREE STOCK.

At the request of the Argentine Rural Society, the Minister for Foreign Affairs of the Argentine Republic has cabled to the Argentine Consul General in London stating that the tattoo marks on all pedigree animals shipped to Argentina must be very clear, otherwise exporters will experience difficulty in securing their entry in the Herd Book.

Breeders, Veterinaries, and others interested in the exportation of pedigree livestock to Argentina should therefore see that the tattooing is as prolix as possible so that difficulty may be avoided on the other side.

Argentine Consulate General,  
London. July 8th, 1918.

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. †		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaugh-tered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.											
Week ended July 6	4	4			2	2	49	116	1	51	30
Corresponding week in											
1917 ...	3	4			1	1	46	70	5	41	19
1916 ...	6	8			3	7	30	43	1	108	111
1915 ...	10	11			1	4	31	49	1	107	394
Total for 27 weeks, 1918 ...	147	165			21	57	3048	5852	245	770	290
Corresponding period in											
1917 ...	296	340			15	27	1630	3238	388	1453	628
1916 ...	324	384	1	24	30	78	1506	3495	178	2723	8196
1915 ...	368	412			27	44	1449	1960	157	2434	11171

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities † Counties affected, animals attacked:—  
Board of Agriculture and Fisheries, July 9, 1918 Excluding outbreaks in army horses.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1567.

JULY 20, 1918.

VOL. XXXI.

## THE MEMBERSHIP.

The examination returns now published enable us to form a close estimate of the rate of depletion of the qualified practitioners. The number of men who have passed the "Final" this month is shown as 32. In December last it was 31 = 63 for the year. The number of names in the obituary list of current Register is 108 for fifteen months, Jan. 30, 1917 to April 30, 1918; or a rate of 86 for twelve months. It has been considered for some years past that the annual loss has been near about 80, which has usually been balanced by the number of entrants to the profession. The figures given show a difference—deficit of 23. It is certain that a proportion of the 32 men now joining will go to Army service; and that the number going to country practice will be smaller than ever. It is known that there are large districts at present without veterinary practitioners, that many practices have become derelict, and that in other districts men are working to the limit of their powers in the endeavour to keep going the practice of their neighbour in his absence on service. Possibly, as a profession, we are not worse off than others in this time of great endeavour. But the pass lists show that the deficiency in trained veterinarians cannot be made good for, at least, five years hence: and it may well be not for ten.

## ABOUT SEVERAL DISEASES.

The South Africa Report which we reprint in abstract, in common with many similar reports, contains little that is of direct use to men in general practice in Britain; but reading it leisurely over a quiet pipe there are several items which set one thinking. It has been said that Africa has all the plagues of all the ages, and the diseases mentioned in this report, should surely suffice most veterinarians. But the few with which we are too familiar present themselves under new conditions. Tuberculosis—an imported disease, in the herds tested shows percentages of 2.92: 5.88: 5.7: 18.0, and in imports 3.5. Understaffed as they are at present, "very little progress can be made." Can we, with our heavily infected stock and confined areas, hope to show better results?

Again, "anthrax is responsible for more losses than the rest of the contagious diseases combined, except East Coast Fever: is spreading rapidly: a serious menace to human and animal life." And there is the inevitable history of carelessness. There is enough of that in this country, though the recent decrease has been attributed to the reduced importation of bone meal and other infected material. But, considering the enormous vitality of spores, are our people yet sufficiently alive to the danger of its spread?

There is only one case of Swine Fever reported—and a doubtful one at that. What a contrast to the condition of Europe and N. America! One asks, What are the methods in use? Are the pigs grazed, or styed? Has American bacon not yet reached them; for some men hold strongly that rind of bacon or ham may carry the infection—if fed from the waste tub, which plays such a part in the life of styed pigs. Admittedly, pigs are indiscriminate feeders, but it appears that in S. Africa they can be cleanly fed. Why cannot we avoid feeding on material in which we know that decomposition is commencing, or infection may exist.

## THE SYMPTOMATOLOGY OF POISONING FROM SNAKE BITE IN CATTLE.

Aldidge, having observed the death of a young bull from snake bite in Guinea, communicated the chief symptoms he noticed to the Central Society of Veterinary Medicine, which published the case in its bulletin for 1917.

The first thing which was seen, and which caused snake bite to be thought of, was that the animal was down and it was impossible to raise him, and that the head was very extended upon the neck. Fever was present at that time. The bite was quickly found under the hairs of the lumbar region, to the left of the median line. The animal must have been bitten during the night, while sleeping, by a snake which had got into the building where he was.

The following day, the symptoms seen the evening before were more marked. On the third day the appetite had completely disappeared; but the animal showed great thirst. Dyspnea was present, the pulse was small, and the temperature was 100.9° F. On this day a fetid diarrhoea succeeded the constipation which had been observed on the preceding days, and tympany was present. The contraction of the neck was continued, and proved that the action of the poison was exercised principally upon the medulla and the nervous centres. All the locomotory muscles were contracted, especially those of the hind limbs, which were completely rigid. The animal had fallen into almost complete somnolence.

On the fourth day the temperature descended to 99.1° F.; but the general condition remained the same. The animal died on the seventh day, in hypo-thermia.

No local treatment was instituted; because, as anti-venom serum was not available, local treatment was considered useless.—(*Revista de Higiene y Sanidad Pecuarias*).



## Royal College of Veterinary Surgeons.

### EXAMINATIONS IN LONDON.

At a meeting of the Board of Examiners, held in London on July 8th, 1918, for the Written, and on July 9th for the Oral and Practical Examinations, the following gentlemen passed their Final Examination:—

Mr. H. R. Allen	Mr. H. H. Leach
G. Barnett	J. McCunn
R. W. Down	D. E. MacRae
C. W. Heane	K. S. Simpson
T. H. Jones	W. A. Williams

The following passed their Third Examination:

Mr. R. Catmur *	Mr. P. Matthews
T. J. Margaron	J. R. Pratt *

The following passed their Second Examination:

Mr. A. S. Canham	Mr. C. N. Thompson
H. L. Hobson	

The following passed their First Examination:

Mr. A. M. Diesel	Mr. R. C. Holmes
G. Eaton *	H. J. Loveless *
D. A. Gill †	R. G. Nurse
J. Heath	H. Theiler

### EXAMINATIONS IN EDINBURGH.

The following passed their Final Examination:

Mr. R. L. Creery *	Mr. J. Judge
H. F. Downie	J. McAllan
J. K. Irvine	J. R. Rider

The following passed their Third Examination:

Mr. D. Buchanan	Mr. L. L. Jones *
J. Davies *	W. C. Miller *
A. B. Hendry	E. J. H. Sewell
H. V. Hughes	

The following passed his Second Examination:  
Mr. A. K. Cameron

The following passed their First Examination:

Mr. W. L. Downie	Mr. G. B. Taylor
R. S. Smythe	W. Tweed
F. E. Somer *	

### EXAMINATIONS IN GLASGOW.

The following passed his Final Examination;  
Mr. A. L. Robertson

The following passed their Third Examination:  
Mr. W. J. Leyshon \* | Mr. J. Mason \*

The following passed his First Examination:  
Mr. W. McAlleer

### EXAMINATIONS IN LIVERPOOL.

The following passed his Third Examination:  
Mr. C. V. Watkins

The following passed his Second Examination:  
Mr. T. G. Sommerville

The following passed their First Examination:  
Mr. W. J. Parry | Mr. F. H. Manley

### EXAMINATIONS IN DUBLIN.

The following passed their Final Examination:

Mr. J. T. Alcock	Mr. A. J. Kelly
S. Anderson	W. E. Little
C. A. Ewing *	J. A. McCutcheon
W. F. Fennelly	B. S. Parkin
T. FitzPatrick	W. L. Smyth *
T. C. Hall	D. P. White
T. J. Hurley	W. F. White
T. Kelleher	

The following passed their Third Examination:

Mr. P. J. Cooney	Mr. P. C. McGowan
D. J. Donnelly	A. McLean
A. J. Devine	T. F. Moran
P. J. J. Fourie *	C. P. Naser †
M. W. Henning *	V. E. Stack
W. G. Jones †	

The following passed their Second Examination:

Mr. P. V. Byrne	Mr. P. McDonnell
D. B. Colbert	J. P. Nowlan
W. G. Emerson	J. O'Keeffe
G. A. Evans	R. J. Roe
W. R. Henry	J. F. Timoney

The following passed their First Examination:

Mr. P. Carron	Mr. W. E. McDonald
S. W. DeVilliers *	J. E. McIlwaine *
J. A. Flynn *	W. D. Morton *
A. G. Gordon	W. O'Callaghan *
M. A. Heffernan	L. O'Dowd *
E. J. Hughes	M. J. Ryan *
J. Hyde	J. O. Schofelde
C. Lucey	J. Thompson

Marked thus † passed with First Class Honours.

Marked thus \* passed with Second Class Honours.

### NATIONAL VETERINARY MEDICAL ASSOC. OF GREAT BRITAIN AND IRELAND.

#### Preliminary Report.

#### PROFESSIONAL FEES.

At the annual general meeting of the N.V.M.A., held at Red Lion Square, the following resolution was passed:—

"That we send forward to the Branches for comment and criticism certain recommendations respecting night calls, percentage increase on existing fees; fees for insurance examination of horses for soundness, and castration; and payment for the use of the veterinary surgeon's car."

The recommendations are as follow:—

1. That there be a general increase on pre-war fees of "not less than 25 %."
2. That double fees be charged for night work, commencing at 6 p.m. in winter and 8 p.m. in summer.
3. That the minimum fee for examination for soundness should be one guinea; and for castration 10/6.
4. That the scale of fees previously recommended for Insurance Companies be not reduced, but increased 25 %.
5. That Government Offices and Public Bodies shall be requested to pay to Veterinary Surgeons using their own car or trap the same fees as they would have paid to the garage or livery stable for car or trap hire.

It is hoped that Branches of the National will discuss these several matters and forward their comments, etc., for general discussion at the next meeting of the National V.M.A.

GEO. H. WOOLDRIDGE, Acting Hon. Sec.

ANNUAL REPORT, 1916-17, VETERINARY DIVISION,  
DEP. OF AGRIC., UNION OF S. AFRICA. [Abridged.]

In the absence of the Principal Veterinary Officer, in German East Africa on special duty in connection with the outbreak of Rinderpest in that country, I have the honour to submit a report on the work of the Veterinary Division during the year ended 31st March, 1917.

East Coast Fever continues to take up most of the time of the officers of this Division. Taking the Union as a whole, the position has improved, but taking the Provinces individually, I am sorry to have to report that the outlook is not too bright.

Cape Province is in the fortunate position of having no fresh outbreaks during the year. There remain only two areas under quarantine in the Komgha District—and, as no cases of this disease have occurred in this district since May last, I think we can safely look forward to shortly releasing these areas. The existence of the disease in the bordering Transkeian districts still remains a source of anxiety.

Transvaal.—Although the number of outbreaks is eleven less than last year, the position is rather disappointing, as the disease has developed alarmingly in the Pietersburg district, where it was considered it was well under control: there were twelve fresh outbreaks. There were also eight new outbreaks in the Barberton District, but this is a district in which the topographical nature makes the task of combating the disease a difficult one.

There is no doubt that the spread of the disease in the Pietersburg district is entirely due to the lack of co-operation on the part of the farmers. It is evident that two very serious outbreaks had been hidden from the authorities for some considerable time. A further outbreak was discovered at Zoetfontein, whose date of inception is quite obscure, as the owner, although not a thorough believer in dipping, dipped just sufficiently to check mortality. Yet another serious outbreak, whose presence was hidden as long as possible, was discovered at Waterval No. 211. Before these outbreaks were discovered, infection, through the medium of joint dipping and grazing, had spread to other farms, thus the efforts of the officers of this Department were entirely thwarted by lack of co-operation on the part of certain farmers. However, it is hoped that, with measures now taken, the spread of the disease will be checked, and that with the help of the farmers, who have realised the necessity for dealing with this disease with a firm hand and have gone in for dipping tanks (the surest method of combating the disease), there will be an increased improvement in twelve months' time and that the cattle industry will not be seriously interfered with.

It is evident, from various public meetings which the officers of this division have attended, that the farmers are now firmly convinced of the advantages of dipping, and that they no longer look with favour upon concentration and slaughter as a means eradicating the disease.

In the Zoutpansburg district just one death has occurred, but, unfortunately, it keeps a large native area in quarantine. As a precautionary measure a large area has been placed under compulsory dipping.

There have been eight fresh outbreaks in the Barberton District, but, as against this, twenty-four farms have been released from quarantine. Owing to the rugged nature of the country and the consequent difficulties in connection with the erection of tanks, concentration of cattle for the purpose of obtaining dipping facilities has been resorted to, and in a few cases where it was impossible to arrange for dipping, the surviving cattle were slaughtered off and the owners compensated.

The re-infection of the Waterberg District is regrettable, but it is not considered there is much to be feared from this outbreak as, in spite of the fact that there are 487 contacts, only one beast has, to date, succumbed. This very slight mortality is evidently due to the pre-

cautions taken nine months previously in connection with the outbreak on Rietvlei on the Pietersburg side of the border, whereby the block of farms, in the centre of which this outbreak has occurred, was placed under a seven-day compulsory dipping order.

In the Piet Retief District very good progress has been made, and this is entirely attributable to the fact that the district is now well provided with tanks. During the year four farms were released from quarantine. We have, however, had one unfortunate setback on the farm Zendeings Post. The origin of this outbreak has not been discovered, but there is no doubt that had the owner continued dipping his cattle regularly after the first outbreak had been disclosed, he would not only have greatly reduced the mortality from the second outbreak, but he might possibly have avoided a second outbreak. Fortunately there has been no spread of the disease from this new centre of infection.

The seven fresh outbreaks which occurred in the Carolina District were all more or less in the same neighbourhood. Owing to so few of the farms in this district being inhabited by Europeans, the matter of control is a difficult one, but a better supervision of the dipping is now ensured. A tank has been erected by the Government on the farm Steynsburg 91, and the cattle from several infected farms have been concentrated thereon. On one farm, where no dipping facilities were available, the natives were persuaded to slaughter off the whole of the infected herd.

Natal.—It is to be regretted that the progress made towards eradication of the disease in this Province is somewhat disappointing, but it is largely due to the fact that there are so many absentee landowners. 126 outbreaks occurred during the year, as against 91 in the previous year, and the unsatisfactory feature is that many of them had been in existence for some considerable time before they were detected, and were thus a means of spreading the disease far and wide. On the other hand, in a good few instances, the first case of the disease was diagnosed and the prompt adoption of three-day dipping and handdressing had beneficial results.

In a country like Natal, the difficulties of early diagnosis with a disease of the nature of East Coast Fever are considerable, more especially when the farmer fails to do his part in assisting the officers of the Department. As the majority of cases in Natal do not come to light until they have been in existence for some time, and consequently the adult brown tick is prevalent and infected, five-day dipping is now enforced in preference to three-day dipping. Doubtless three-day dipping gives results in the hands of farmers who attend to all necessary details, but as a general practice five-dipping gives better results, as, even if the dip is slightly below strength, there is still a chance of it retaining its tick-destroying properties, whereas the three-day dip slightly below strength is far too weak to ensure the result. In either case handdressing is essential. As a further precaution, in case the quarantine is removed too early through the date of the last death being incorrectly reported, movements of cattle from recently released properties are only permitted provided the cattle can be kept under observation for thirty days on an approved property at their destination, special consideration being given to those cases in which the infection was slight; and for the present ox transport from these farms is only permitted where the to and fro movement can be permitted without outspanning off the owner's property.

The erection of tanks in Natal is proceeding apace, though considerable difficulty is experienced in the case of absentee landowners. It has been found necessary to stop, to a large extent, the holding of central public sales—a very necessary precaution that is generally borne in good part and looked upon as a necessary evil. In one or two isolated cases the slaughter of the surviv-



ing cattle has been resorted to as a means of exterminating the disease.

Considerable progress has been made in the Transkeian Territories during the year and, as a consequence, the cattle are steadily increasing in numbers in the majority of districts. The natives generally are realising the advantages of efficient dipping, and the Transkeian General Council is exerting every effort to provide funds for the erection of as many tanks as possible. The sum of £10,000 is being placed on the Estimates for coming year for this purpose. The allotment of these tanks is being placed in the hands of this Division, and it is our intention to confine our attention to the districts on the border first, in order that we may have a belt of clean areas to act as a buffer for the adjoining districts of the Cape Proper and Natal.

#### Return of Cattle Dipping Tanks.

Province.	31 Mar., 1916	31 Mar., 1917.	Constructing.
Cape ...	1409	1449	5
Transvaal ...	717	867	48
Natal ...	3557	3946	—
Transkei ...	638	673	14
Orange Free State	128	157	16

#### Tuberculosis.

By the lack of funds and the shortage of staff the endeavours of the Department to eradicate this disease are seriously handicapped, and until both these difficulties are overcome very little progress can be made. The question of increasing the amount of compensation payable under the Act has again been brought forward for discussion, but as yet no decision has been arrived at.

In the four closed districts of Cape Province, 4695 cattle were subjected to the test before removal to other districts, of which 137 reacted, and were destroyed, giving a percentage 2.92 reactors.

In the Transvaal there were 18 outbreaks, as against 13 during the previous year, in connection with which 663 cattle were tested, and of which 39 reacted, and were destroyed. The number of outbreaks, however, is by no means a true reflex of the position of the Transvaal as regards the prevalence of the disease, as, with the means at our disposal, it is impossible to follow up the disease properly.

In Natal four outbreaks were dealt with, in the course of which 1339 cattle were tested, and of these 75 proved to be infected, and were destroyed.

Although several farmers in the Mount Currie District were anxious to have their herds tested, with the very small staff operating in the Transkei it was not possible; only one herd was tested, with the result that 47 reactors were discovered in a herd of 360.

No outbreaks were dealt with in the Orange Free State.

Owing to the war, the arrangements made for the application of the tuberculin test over sea, in animals intended for import, have not been made use of; all imported cattle, as heretofore, were tested at the Ports. Of 455 cattle tested, 16 were found to be reactors, and destroyed—a percentage of 3.5.

#### Anthrax.

This disease is responsible for more losses amongst stock than the rest of the contagious diseases combined, with the exception of East Coast Fever, and judging from the number of outbreaks that have occurred within the Union this disease is spreading rapidly, and is becoming a serious menace both to human and animal life, and I am afraid its spread is chiefly due to negligence on the part of the farmers and natives—more especially the latter, who will not bury a carcass intact if it can possibly be avoided. In some

districts in the Transvaal, where anthrax is particularly prevalent, the skinning and opening of the carcass of an animal which has died suddenly of disease is forbidden until such time as a blood smear has been taken and the examination thereof has proved that the animal has not died of anthrax. The advisability of applying this regulation to the whole of the Union is a point which will have to be considered. Various warnings and pamphlets on this disease have been spread broadcast amongst the farmers and natives, in the English and Dutch and Native languages, but I am afraid the results are very disappointing.

#### Glanders.

With the exception of the Cape Province, this disease is not very prevalent in the Union. Glanders is the usual war legacy, and the present war is no exception, and accounts for the increase in the number of outbreaks in the Cape Province (40 as against 22 in 1915-16) where military horses and mules, sold after the German South-West Africa Campaign, were distributed.

An epidemic of influenza affecting equines, a disease which conceals the symptoms of glanders, further abetted the spread of the disease.

*Equine scabies (mange).* With the exception of the Cape and Transvaal, this disease is not very prevalent in the Union (92 and 17 outbreaks, respectively, with 11 in other three provinces). In the Cape Province it is chiefly prevalent in three districts, most of the affected animals being donkeys owned by poor whites and coloured people.

*Epicootic lymphangitis* is only slightly prevalent in the Union, chiefly in the Humansdorp district in the Cape Province. The most expedient, economic, and effective method of dealing with this disease is to destroy the affected animals.

*Contagious abortion* is somewhat prevalent throughout the Union, and its eradication presents some difficulty, as the quarantine policy is, unfortunately, not one that attracts the co-operation and support of the farmers in the detection of the disease. During the year 46 cases have been reported, the agglutination test being applied in most cases.

*Trypanosomiasis.* Nine cases were reported in Natal during the year. The infected animals, 20 in number, were 14 cattle, 5 donkeys, and 1 mule.

*Swine fever.* Only one outbreak was reported—in the Transvaal, and even in this solitary case, owing to the result thereof, there is an element of doubt as to whether the disease was really swine fever.

*Dourine.* On account of the detection of a suspected outbreak of "Dourine" in the district of Herbert, Cape Province, this disease was added to the list of diseases scheduled under the Animal Diseases Act, in order that the Minister might have the necessary legal power to deal with animals suspected of being infected with it. Investigations are still proceeding in connection with the suspected outbreak in Herbert. It is a disease of considerable economic importance. Treatment is unavailing, and the destruction of the infected animals, with payment of compensation, is the only effective method of preventing its spread.

#### NON-PROCLAIMED DISEASES.

Redwater:—Reported spreading in some districts.

Geeldikkop:—Owing to the drought, was not prevalent this year, more especially in the Cape Province. Investigations as to the nature and course are still proceeding.

Quarter Evil:—Was very prevalent in the Transvaal, and caused considerable loss. Inoculation was carried out, and the officers of the Division gave several inoculation demonstrations for the benefit of the farmers and natives with, it is considered, very good results.

**Blue Tongue**:—Less severe, especially in the Cape Province, probably owing to the drought. Inoculation was carried out to a great extent.

**Horsesickness**:—Caused heavy loss in the Transvaal. A large number of equines were inoculated by the V.O., but, unfortunately, losses from a form of "staggers" ensued, and the method had to be stopped.

**Dunzielte**:—In the Transkei, there was considerable mortality amongst equines. Investigations in connection therewith by the Veterinary Research Division are proceeding.

**Mealie poisoning**. In August last, in the Eastcourt Division, Natal, serious illness and many deaths were reported amongst cattle which had been turned into mealie fields. A quantity of "mouldy" mealies were picked up on the fields and sent to the Allerton Laboratory for experiments, with the result that it was definitely proved that "mouldy" mealies are poisonous. No medicinal treatment appears to be of any avail, but the farmer, of course, has the remedy in his own hands—i.e., the removal of all such diseased mealies from the fields before the cattle are turned into them.

#### *Importation of Slaughter Cattle from the adjoining Territories.*

During the year a Port of Entry for stock was established at Liebig's Drift, on the Rhodesian border, and at 31st March, 1917, 1561 cattle had passed through; 11,856 were introduced *via* Mafeking, making a total of 13,417 cattle from Rhodesia. From Swaziland 200 cattle have passed through the quarantine camp on the border. 30,072 were introduced from the Bechuanaland Protectorate. A total of 43,689 into the Union during the year.

#### *Export of Beef.*

The administration of the regulations governing the meat export trade has given the officers of this Division a great deal of extra work, and has taken up a lot of time, especially in Durban, where the whole time of one Veterinary Officer is devoted to it. During the year 53,070 carcasses were examined, and 115,992 quarters were shipped. At Johannesburg, Bloemfontein, and Cape Town, where the slaughtering is carried out at the Municipal Abattoirs, the Municipal V.S. has been authorised to act as Govt. V.O. for purposes of the export regulations. But if, as is anticipated, applications to have their abattoirs sanctioned for slaughtering for export are received from Municipalities who do not employ whole-time Veterinary Surgeons, there is doubt as to whether it would be advisable to sanction such a course. The meat export trade is in its infancy, and every precaution should be taken to ensure it being placed on a sound basis—the quality of meat kept to a high standard, and the regulations strictly adhered to.

#### STAFF.

The Division is still called upon to carry on its duties with a large percentage of Veterinary Officers away on active service. In addition to fifteen Veterinary Officers, twelve Stock Inspectors and East Coast Fever Officers are still with the forces. The Department was also unfortunate to lose the services of Government Veterinary Officer Goulc, who had reached the pensionable age, and retired in February.

With East Coast Fever taking up most of the time of the officers of the Division, their duties are somewhat trying, as it is more often than otherwise their unpleasant duty to impose somewhat irksome restrictions on farmers. The fact that it is their duty to look after the interests of the farming community as a whole, and not merely the interests of the individual farmer, is very rarely understood by the average farmer when he is called upon to suffer on account of the misfortunes, or perhaps negligence of his neighbour. It is, therefore,

greatly to the credit of the officers of the Division that they carry out their duties in such a creditable manner, and I take this opportunity of expressing the gratitude of the Principal V.O. and myself for their continuous devotion to their duties, and for their loyal support. I wish also to record this Division's appreciation of the assistance always so willingly given to its officers by the Magistrates, Native Commissioners, and members of Police Force.

J. D. BORTHWICK, Actg. P.V.O.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

R. L. C. Forrest, Towcester	£1	1	0
James Gregg, Capt. A.V.C.	1	1	0
C. A. Hutton, Capt. A.V.C.	1	1	0
W. A. McDougall, Lt. Col. A.V.C., D.S.O.	1	1	0
Joseph P. Railton, Bulth Wells	1	1	0
A. Richardson, Lieut. A.V.C.	1	1	0
John C. Rowlands, Llanrhadr-y-n-Mochnant	1	1	0
Frank Ware, I.C.V.D. Madras	1	1	0
Previously acknowledged	889	10	5
	£897	18	5

#### ARMY VETERINARY SERVICE

War Office, July 12.

The following are among the Decorations awarded by the Allied Powers at various dates to the British Forces for distinguished services rendered during the course of the campaign. The King has given unrestricted permission in all cases to wear the Decorations and medals in question:—

CONFERRED BY THE KING OF THE BELGIANS.

CROIX DE GUERRE.

Temp. Major J. M. Dawson, M.C., A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, July 11.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temp. Lt.:—W. L. J. Caron (June 1).

July 13.

Capt. T. Bone relinquishes the temp. rank of Major on ceasing to be empld. as Dep. Asst. Dir. of Vety. Servs. (Jan. 25).

Capt. T. Bone to be actg. Major whilst holding a special appt. (Feb. 9).

TERRITORIAL FORCE, ARMY VETERINARY CORPS.

July 17.

Capt. P. J. Simpson to be acting Maj. whilst comdg. a Veterinary Hospital (June 20).

CANADIAN A.V.C.

July 13.

Dep. Asst. Dir. of Vety. Servs.:—Temp. Capt. W. G. Stedman, *vice* Maj. (temp. Lieut.-Col.) C. E. Edgett (May 29).

RECORD PRICES FOR RAMS. At the Merino sheep sale at Sydney, N.S.W., following on the record price of 2500 guineas paid on Monday, 1st inst., for a stud ram, another record Merino ram has fetched 3000 guineas.—*Reuter*.

### The Chemistry of Living Matter.

The cessation of respiration has always been regarded as the best evidence of death. Without some interchange of oxygen and carbonic acid through some of the body tissues life cannot be maintained. In a recent book entitled *A Chemical Sign of Life*, published by the University of Chicago, an account is given of a series of experiments undertaken by Dr. Shiro Tashiro to prove that such interchange is as essential to all forms of living matter, vegetable as well as animal, as it is to man. Directing his attention to the detection of carbon dioxide proceeding from living tissues under varying conditions, he devised an extremely delicate test whereby the presence of one ten-millionth of a gram could be demonstrated with certainty.

The test consisted in the formation of a precipitate of barium carbonate, easily visible through a hand lens, when carbon dioxide is brought into contact with a film of half saturated barium hydroxide solution. The ingenious apparatus in which the test is applied is fully described and figured, and appropriately named a "biometer." Waller and others have long since demonstrated the occurrence of electrical changes in the course of all vital processes, and it has thus been proved that chemical changes also are no less constantly present in all living matter.

"Irritability is the universal sign of life, and by it living matter adjusts itself to its environments"; but whether such irritability is the cause or the consequence of the chemical changes remains to be proved.—*British Medical Journal*.

**THE IRISH DRAUGHT HORSE.** At the annual two-day Summer Show of the Cork Agricultural Association opened on Tuesday, 9th inst., there was a new section for Irish draught horses, in three classes—Stallions, Mares, and Foals of three years and upwards. Three were placed in each of the first two classes, and two in the third. The number of entries is not stated in the report to hand.

### Personal.

At their recent meeting the Senate of Glasgow University awarded the Bellahouston gold medal to Mr. R. T. Leiper, M.D., D.Sc., of the London School of Tropical Medicine, for his contributions to medical helminthology.

[Many of our readers will remember Dr. Leiper's contribution to the Carnarvon meeting of The National V.M.A., and later, a demonstration at a meeting of the Central Society.]

At a recent Investiture held by the King, Lieut. H. D. McKinna was one of the recipients of the Military Cross. He is the third son of Mr. J. McKinna, F.R.C.V.S., of Huddersfield. He was dangerously wounded in the right lung in November last, but is now slowly recovering.

The official record runs:—

Awarded THE MILITARY CROSS.

Temporary 2nd Lieutenant H. D. McKinna, Argyll and Sutherland Highlanders.

For conspicuous gallantry and ability in action. When his line had become very much shaken owing to casualties and shell fire, he displayed great gallantry and skill in reorganising it, and his total disregard of personal danger inspired all ranks at a most critical period.

Capt. H. Leeney intimates that he has received an enquiry (Post Card) from Winchester, but without the writer's signature.

### OBITUARY.

**CLEMENT STEPHENSON, F.R.C.V.S., D.S.C., Newcastle-upon-Tyne.** Graduated. Lond: March, April, 1856.

Dr. Clement Stephenson died in Newcastle on Monday, 15th inst., aged 86: he had been in failing health for some little time. He was one of the first group of Fellows, elected in February, 1877, on the creation of the Fellowship Degree by the Charter of 1876, and served as Vice-president R.C.V.S. in 1888.

His first public work of note was the stamping out of the cattle plague in Newcastle in 1865. In 1877 he was appointed Chief Inspector of Cattle for Northumberland.

In 1880 he retired from practice and turned his attention to stock-breeding, and from that time till recent won championships at all the principal shows for his Black-polled cattle—the Aberdeen-Angus. At the "Royal," in 1887, he took many prizes.

Dr. Stephenson took a great interest in agricultural education, and made a gift of £5000 for the purpose to Armstrong College, which conferred on him the degree of D.C.L. He was unmarried.

### The late Capt. A. R. Routledge.

Capt. Routledge, F.R.C.V.S., one of the best known veterinary surgeons in the wide and important agricultural area of North-east Lincolnshire, was the son of Mr. James Routledge, J.P., of Jarrow, Newcastle-upon-Tyne; he was educated at Kopies Grammar School, Durham, and graduated at the Dick College, Edin., in May, 1895, winning a second FitzWygram prize. He took the Fellowship R.C.V.S. in May, 1903, and in 1906 succeeded Mr. G. H. Kitchin in the extensive practice formerly conducted by Mr. J. Brodie Gresswell, F.R.C.V.S. Mr. Routledge speedily took a prominent position in the County, and held inspectorships under the B. of A. and Lindsey C.C., he acted as Veterinary Surgeon to the Lincolnshire Agricultural Society: was also Examiner to the Worshipful Company of Farriers.

Immediately war broke out he joined the Army (T.F.) and commenced his military duties on August 9th, 1914, at first attached to the Sherwood Rangers. Later, he was in command of the Veterinary Hospital at Bury St. Edmunds, East Anglian Division, and also at Huntingdon. In France he was kicked by a mule, and the injury to his knee necessitated remaining in hospital there for a time. After a period of rest at home, he was sent to York for light duty; and from there to the 3rd Northern General Hospital, Leeds. From here, in April, he was invalided out of the Army, "through ill-health contracted on active service," and then resumed practice in Lincolnshire. The respect of his fellow-townsmen was shown by his election to the Louth Town Council soon after his return to practice.

The funeral took place on Monday, 1st inst., there was a large attendance. Amongst those present at the church and at the graveside were Major Maclean, representing Gen. C. B. Westmacott, A.D.C., Capt. F. J. M. Ingoldby, officially representing headquarters staff, Capt. Somers, representing Army Veterinary Corps, and six captains acted as bearers; the Mayor, members of the Town Council and the principal officials; Dr. A. Gresswell, Mr. F. B. Eve, F.R.C.V.S., and, with the private mourners, Mr. W. Willis, M.R.C.V.S. Striking evidence of the extent of his practice, and the esteem in which he was held for his geniality and skill, was furnished by the attendance of all the leading farmers in North-east Lincolnshire.

The floral tributes were very numerous, including one from the Officers, N.C.O.s. and men of the East Anglian Veterinary Hospital, Huntingdon.

**Cows, Cowhouses, and Milk.** By G. MAYALL, M.R.C.V.S. Second Edition, revised and enlarged. Pp. vii + 136. Price 3/6 net. (Baillière, Tindall, & Cox, 8 Henrietta Street, Covent Garden, London. 1918).

We reviewed this little book when it first appeared; and the second edition does not call for a lengthy notice. Four new chapters have been added, and some revision and re-writing taken place; but the work remains substantially the same. It is a useful popular handbook upon the more essential points regarding cows, their treatment, milk, and milk-production, and will be helpful both to farmers and dairymen who have not yet assimilated the modern teaching in the subjects, and those who are taking them up with little previous knowledge. Its main use to the veterinary surgeon and to the really instructed stockowner is for recommendation to subordinates and others who have still much elementary matter to learn. The author suggests in his preface that after the war "there may be an accession of men to the land desiring to try their hand at cow-keeping," and expressing the hope that the book will be specially useful to them. Doubtless it will; for many such men will find such a volume the best preparation for a more advanced one. Considering its distinctly increased size and the present conditions, its price of 3/6 nett compares very favourably indeed with the 2/6 nett of the first edition.

W. R. C.

#### "SNAIL POULTICE."

The other day I was asked to see a cow which, I was told, had stepped on a piece of glass and had a nasty cut between the claws. I found the cow out in a field, and very lame, with a piece of rag tied round her foot. I proceeded to examine the foot, and when removing the rag the owner (a woman) said, "That's a snail poultice." I have been treating her with it for three weeks, and as she was not getting better I thought it was time for someone to see her."

When the bandage was removed I found, wedged between the claws, two or three snails, which I scraped out with a blunt knife. As I was not asked whether "snail poultice" was any good I did not comment upon the "wonderful treatment;" and, besides, I had been told that "mother had great faith in snail poultice."

Cornwall.

COUNTRY PRACTITIONER.

#### Prevalence of Parasitic Mange.

At Samford Sessions, on Tuesday, 9th inst., John Lait, farmer, Holbrook, was charged with failing to give notice of a horse being affected with parasitic mange.

Mr. Henry Phillips, veterinary surgeon, stated that on June 14th he visited the defendant's premises and discovered a bay cart gelding suffering from parasitic mange. Defendant, when informed of the fact, said he did not know the horse had mange, although he was aware it had skin trouble.

Defendant pleaded not guilty, stating that he had never had a case of the kind before, and was quite unaware that the horse was diseased.

A fine of 30s. was imposed, and defendant was advised by the Magistrates in future to communicate with the authorities at once, or the consequences would be very serious.

William Simson, veterinary surgeon, of Langham, Essex, was charged with a similar offence in respect of the same animal, and pleaded guilty. After Mr. Phillips had given evidence, defendant was fined £3.

Assistant Chief Constable Staunton informed the Bench that the number of outbreaks of parasitic mange notified for the 26 weeks of the present year was 2999, double that of the similar period of last year. It was most important that such cases should be reported.—*East Anglian Daily Times.*

#### The origin of the Percheron.

The following contribution to the history of the Percheron breed is by Leon van Meldert, of Crosby, Harris County, Texas, in the form of a letter to the *Live Stock Journal* :—

"From reading your paper I must conclude that in England you begin to believe that the Percheron horse of France has an Arabian origin. Since this opinion was pointed out to me some years ago I have been investigating the case, and I have found that the facts are quite different.

It was around 1887 that here in America the publisher of the Percheron Stud Books gave out the opinion that Jean le Blanc, an old-time Percheron stallion, was a descendant of Gallipoli. My investigations show that Gallipoli was a Persian stallion, a grey, born in 1803, imported into France in 1813, and who lived till 1821. He may have been an Arabian, but this is only an opinion.

The Percheron horse of France was not existing when Husard père wrote the book, 'Des Haras Domestiques en France,' in 1818. In that book Husard is describing every French breed of horses, and he does not mention the Percheron horse, which became known only when the omnibuses of Paris began to use a grey horse bred in the Perche, Picardy, Flanders, and Poitou, and this horse became one with a real good reputation around 1848. Those who wrote about him from that time were Charles de Soudeval, Ephrim Houel, Charles du Hays, Napoleon de Saint Albin, Eugène Gayot, and Andre Sanson.

Charles de Soudeval says that the Percheron breed has had all its good qualities from a bay stallion coming from the Cotes du Nord. This stallion was Young Rattler, by Old Rattler and a snap mare. He had been imported in 1820 to France, by M. Wollaston, who had a stud farm at the Chateau de Crenan, near Quintin, Cotes du Nord. This horse was born in 1811, and lived till 1836.

This Young Rattler had a great many sons, all dapple greys, who were standing in Normandy and Perche, among them Regretté, Antenor, Malplaque, Meriadec, Pegase, Young Antenor, Eminence, Mortagne, Oxigène, Envié, Francois I., Heliotrope, Oscar, Birmingham, Grlitz, Herbouville, Ulysse, Flibustier, Opicrinus.

According to Ephrim Houel, the importation of Sandy in the Perche made a noted improvement to the breed. This Sandy was a grey stallion coming from England, and he was the sire of two extra good stallions, Conquerant and Sandy.

Another English stallion, Pretender (1829 1842), had a grey son, Omar, who was standing in the Perche. And then another Pretender, born also in England, in 1859, and standing in France from 1865 to 1881, sired the greys Grison, Ardoisé, and Croquelicot, who were also used in the Perche country.

The Norfolk Phenomenon, born in England in 1845, and used in France from 1851 to 1872, had a grey son, Obligeant, who was also used in the Perche district.

The Percheron horse owes, then, most of his qualities to the Hackney breed of England. This is absolutely sure, as the proofs are given here, but nothing shows that there is any relation between the Persian stallion Gallipoli and the actual Percheron horse of France and America.

Charles du Hays did not say that the Percheron horse was descended from the Arabian horse. He wrote 'He has that beautiful grey robe of the Oriental horse.' Nothing more.

Eugène Gayot, who has been the most prolific writer on French horses during the nineteenth century, does not give an Arabian origin to the Percheron horse. His opinion is that the Perche country was the sole factor able to make a percheron horse, even if the colts were imported from the Cotentin, the Vendée, and the Poitou. 'Bretons, Boulonnaises, Bourbourians, Flemish, Cauchois, Picards, etc., are becoming Percherons under the climate and conditions of the Perche' ('Les Chevaux de Trait Fran ais,' pages 224 and 225).

If England wants now to make a cart horse that is able to trot, the foundation stock should be the English Hackney sire crossed on draught mares. By selection and feeding the Hackney horse could be turned faster into a light draught horse than any stock coming from Arabian studs. In Belgium around 1885-1890 the best

light draught horses, named Ardennese, were made by using a Belgian horse on a Hackney mare. The Belgian horse himself is only an overgrown Hackney; he has the same points, the same action, but he weighs 700 lb more. Here in America I have been able to make some kind of a Hackney by crossing Belgian horses on Texas native mares. This is proof that the Hackney must have been used in the creation of the Belgian horse, and if he can make such a heavy horse he must be able to make a lighter one—i.e., a cart horse that is able to trot."

#### Pigs and Tubercular infection.

The Bureau of Animal Industry, U.S.A., has concluded after a series of investigations, that "The exposure of pigs to the faeces of tuberculous cattle is a much more certain cause of their infection than their exposure to milk from tuberculous cows or to pigs infected with tuberculosis."

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)			(a)	
Gr. BRITAIN.											
Week ended July 13	1	1			1	3	48	103		41	17
Corresponding week in											
1917 ...	7	7					32	54		55	19
1916 ...	8	8			1	5	30	53		85	65
1915 ...	6	11			2	3	30	74		96	317
Total for 28 weeks, 1918 ...	148	166			22	60	3104	5964	245	814	307
Corresponding period in											
1917 ...	303	347			15	27	1662	3292	388	1508	647
1916 ...	332	392	1	24	31	83	1536	3548	178	2808	8261
1915 ...	374	423			29	47	1479	1034	157	2535	11488

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities † Counties affected, animals attacked:—London 1, York, W. Riding 2  
Board of Agriculture and Fisheries, July 16, 1918 Excluding outbreaks in army horses.

IRELAND. Week ended June 29	...	...	...	...	...	...	Outbreaks 1	2	2	2
Corresponding Week in										
1917 ...	...	...	...	...	...	...	1	3	3	26
1916 ...	...	...	...	...	...	...	3	5	5	19
1915 ...	...	...	...	...	...	...	3	5		1
Total for 26 weeks, 1918	2	2	...	...	...	...	76	175	11	31
Corresponding period in										
1917 ...	3	5	...	...	1	1	28	233	141	931
1916 ...	2	6	...	...	...	...	37	226	159	884
1915 ...	1	1	...	...	1	3	36	254	140	822

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, July 1, 1918.

IRELAND. Week ended July 6	...	...	...	...	...	...	Outbreaks ...	2	1	13
Corresponding Week in										
1917 ...	...	...	...	...	...	...	1	1	3	5
1916 ...	...	...	...	...	...	...	...	3	10	91
1915 ...	...	...	...	...	...	...	...	4	4	14
Total for 27 weeks, 1918	...	...	...	...	...	...	76	177	12	44
Corresponding period in										
1917 ...	3	5	...	...	1	1	29	234	144	936
1916 ...	2	6	...	...	...	...	37	229	169	975
1915 ...	1	1	...	...	1	3	36	258	144	836

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, July 8, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1568.

JULY 27, 1918.

VOL. XXXI.

## THE STATE AND THE PROFESSION.

For a considerable portion of its history, the veterinary profession received very little recognition from the State of its economic value to the nation. At a time when Continental States had established efficient and well-equipped veterinary departments and were using them, the only assistance to the profession in this country was the subsidy of the Royal Agricultural Society of England to the London teaching college. From the earliest days the army had required men, and in the days of the cattle plague—in the "sixties" of last century—the Government discovered the existence of the profession; but both before, and for more than a quarter of a century since that time, the civil side of the profession has had little help and but scant encouragement from the State. Five or six years ago there were signs that this period of neglect was passing away, and that the profession was beginning to assume its proper position as an asset to the State; and in the last twelve months there is additional evidence pointing in the same direction.

That this has shown largely in military matters was inevitable; but it has been more noticeable in connection with veterinary work in civil life. Speaking generally, the War Office has treated veterinary surgeons no better and no worse than it is accustomed to treat other professional men whose aid it requires. On the other hand, the actions of other Government Departments have shown some appreciation of the essential part that veterinary surgeons are playing in conserving the national resources, and a readiness to assist their work in various ways.

The two news extracts which we print this week show that Parliamentary use is made of some veterinary work, and the announcement that "the cause and method of spread of Louping-ill" has been worked out at the new Board of Agriculture Laboratory at Addlestone is an asset to the Board. The decision not to call up veterinary surgeons under the Man-Power Act showed recognition of the fact that the few veterinary surgeons still left in the country have become indispensable for the care of our livestock. Along with this, several departmental decisions have greatly facilitated veterinary work. The concessions to veterinary surgeons using motor cars, the special facilities accorded in the purchase of certain controlled medicaments, and the inclusion of veterinary surgeons among the persons entitled to supplementary rations, are all cases in point. Had the same circumstances arisen twenty or thirty years ago, it is certain that our position would have been different.

Much of this is due to the vigilance and ability

with which the chief representatives of the Council have furthered our just claims. Much also probably arises from the present national conditions and prospects, and from the growing appreciation by the Government of the economic value of veterinary work. Our flocks and herds have never been so precious to us as to-day; and the experience of recent years has shown us how greatly veterinary science can aid in preserving them. The continued calling up of our students for general army service lies with the military authorities. How this must certainly affect the supply of veterinary surgeons for years to come is sufficiently evident—as pointed out in this column last week. For years past the number of graduates has not been more than sufficient to meet the requirements, and every man who is worth his salt has found employment readily. But if the action of the recruiting authority continues the number of qualified men will inevitably fall short of the minimum to meet the nation's needs.

## A CASE OF HYDRARGIC ALOPECIA IN A HORSE.

C. Lerena records this case in the *Revue de la Société de Médecine Vétérinaire de Buenos Aires* for 1917. A black horse, in good condition and with no history of disease, presented a hyperplasia of the left hock, probably due to a traumatism. Lerena applied a friction of biniodide of mercury ointment, which was repeated seven days later. At the end of some time the horse lost his coat, remaining completely depilated. No symptoms of hydrargism were presented; and an examination of the urine for mercury gave a negative result. The latter fact is explained by the small quantity of mercury which could have been absorbed, and by the time which had elapsed since its application.

It is difficult to understand how the mercury could have caused the depilation, in view of the minute quantity of it absorbed by so small a surface. Lerena thinks that perhaps an anaphylactic "shock" was produced in the patient after the second application of the mercury.

Lerena believes that the diagnosis of hydrargic alopecia was confirmed by the fact that the horse grew a coat of hair without any treatment, and also because it was possible, by the examination of the skin and by the circumstance that the animal had been co-habiting with others, to absolutely exclude the possibility that the case might be one of ringworm.

Lerena also states that, when a student, he treated a young chestnut horse affected with



arthritis with repeated frictions of strong mercurial ointment on the carpal and tarsal joints, and in this case also falling off of the hair took place. From these facts, he deduces the following conclusions:—There are subjects in which, from an idiosyncrasy, a single mercurial friction suffices to produce Hydrargic alopecia.

A veterinary surgeon, in a case of equine alopecia, should regard as an important point in diagnosis an enquiry as to whether the horse has previously undergone a mercurial treatment.

#### THE INTRAPALPEBRAL MALLEIN TEST.

Lanfranchi published an article upon this subject in *Il Moderno Zootro* for 1917. The very large number of horses upon which he has practised this test has enabled him to observe facts which in certain directions rectify some ideas which he has expressed in former works.

In 1915, Lanfranchi considered that a previous intrapalpebral mallein test did not influence successive tests in either eyelid in the sense of modifying the reactional phenomena of general character; and he believed that the local phenomena were even made more evident. This is true in general; but Lanfranchi has observed that, in some animals, repeated tests in the same eyelid produce a more or less accentuated sclerosis of the intrapalpebral connective tissue. This, in addition to the greater resistance which the eyelid offers to the penetration of the needle, hinders the mallein from penetrating wholly into the thickness of the tissues. The result is to modify the local reactions, the appearance of which is delayed for periods varying in accordance with the extent of the sclerosis of the eyelid. Moreover, the edema which is produced is not sufficient in volume to permit a decision that the result is positive.

These drawbacks are avoided by injecting the mallein into the upper eyelid whenever the lower one presents sclerosed connective tissue. The technique is the same; and the reactional phenomena are equally intense.

Lanfranchi also refers to the question of the adaptation of the organism to mallein. At first he believed that the tissues involved by previous injections did not lose their special affinity for mallein; and he has recorded the fact that Galtier, in one month, was able to repeat the classic reaction eleven times in a glandered horse. This view also is true in general; but in practice Lanfranchi has observed that there are animals which have been subjected to previous injections which do not react if the injection is repeated before a certain time has elapsed. Hence it is necessary to establish a term within which it is possible to repeat the test without risk of diagnostic errors. Studies made with this object have led Lanfranchi to deduce that in certain animals the term may be fixed at seven or eight days, while in others it is necessary that eleven or twelve days should elapse. In view of this diversity, he thinks that when a negative intrapalpebral reaction is obtained in animals which have previously been submitted to the test, and the exact time of the previous test cannot be ascer-

tained, at least fifteen days should be allowed to pass before submitting them to a new injection. Without these precautions it is possible that horses may be considered healthy when in fact they are glandered.—(*Revista de Veterinaria de Espana*).

#### A METHOD OF RUPTURING OVARIAN CYSTS.

Prof. W. L. Williams, in the course of the clinical demonstration upon sterile cows which followed his paper on Contagious Abortion before the American V.M.A. last August (*vide V.R.*, Dec. 29, 1917, page 260), demonstrated a modification in the method of rupturing ovarian cysts. He regards the common method of rupturing such cysts through the rectum as being, on the whole, very unsafe. A few cysts which are very thin-walled can be ruptured per rectum; but with the majority the procedure is dangerous. Williams prefers the following method, which requires the aid of a co-worker. He introduces his hand into the rectum, grasps the ovary, draws it backwards over the vagina, and holds it there. The co-worker then inserts his hand into the vagina, grasps the ovary as it lies in Williams' hand, and ruptures the cyst from the vagina. Considerable force may be necessary to effect the rupture; and therefore Williams prefers this method to the practice of exercising pressure from the rectum.—(*Journal of the American V.M.A.*)

#### VICTORIA VETERINARY BENEVOLENT FUND

A Quarterly Meeting of the Council was held on Friday, July 5th, at 10 Red Lion Square, London, W.C., when the following members were present:—Mr. S. H. Slocock, President, in the Chair; Messrs. E. Whitley Baker, G. A. Banham, W. F. Barrett, J. Dunstan, F. W. Garnett, P. J. Howard, J. McI. McCall, J. W. McIntosh, W. J. Mulvey; Sir S. Stockman; Messrs. H. Sumner, W. J. Young; P. J. L. Kelland and F. Bullock, Hon. Secretaries.

Apologies for absence were received from Messrs. H. J. Dawes, F. L. Gooch, J. Ewing Johnston and T. S. Price.

*Constitution of Council.* The Hon. Secretaries reported the constitution of the Council under the new bye-laws as follows:—

Representing the National Veterinary Association:—

Dr. Bradley, Prof. Wooldridge.	
Central V.M.A.	J. W. McIntosh.
Midland Counties V.M.A.	H. J. Dawes.
Royal Counties V.M.A.	J. Willett.
Southern Counties V.M.A.	The Secretary. *
S. Durham & N. Yorks V.M.A.	"
Western Counties V.M.A.	"
Lincolnshire V.M.A.	"
V.M.A. of Ireland	"
N. Ireland V.M.A.	J. Ewing Johnston
D.A.T.I. V.O. Association	The Secretary. *
Connaught V.M.A.	"

National Vety. Benevolent and Mutual Defence Society,

H. Sumner and S. H. Slocock.

Royal College of Veterinary Surgeons,

Sir J. McFadyean and W. J. Mulvey.

Representing the Members of the Society:—

G. A. Banham, F. L. Gooch, J. McI. McCall,  
A. Spicer, W. Jackson Young.

\* Notices of Meetings are sent to the Secretary in cases where the Association has not yet nominated a representative.

*Ex-officio—**President—S. H. Slocock.**Vice-Presidents—J. Dunstan, T. S. Price,  
R. C. Trigger, E. A. West.**Trustees—Sir S. Stockman, F. W. Garnett,  
W. F. Barrett.**Hon. Secs.—P. J. L. Kelland, F. Bullock.*

The minutes of the previous meeting having been published were taken as read, and confirmed.

*Report of Hon. Secretaries, 4th April, 1918.*

Since the previous quarterly meeting our efforts have been mainly directed to the collection of subscriptions in arrears. There still remain, however, a number of outstanding subscriptions, and the number of new subscribers secured is very small.

On the other hand, Donations have been received amounting in all to over £90, inclusive of the grants received from the Boltons Cinema. One of these Donations is for £50 from a young graduate who desires to remain anonymous, an exceedingly generous and welcome gift. Another sum of £10 came from a donor who is not a member of the profession, and who gives special directions as to the disposal of £5 of the amount, the gift again being anonymous. A further anonymous donation of £5 6s. was received from a member; and the Midland Counties V.M.A. has voted £10 10s. Several members of this Association have also taken collecting boxes. We should be grateful if the Secretaries of other Societies would take boxes themselves and ask their members to do the same. Many veterinary surgeons are suggesting to clients, in cases where otherwise no charge would be made, to pay to the collecting box.

We have also been gratified to learn from Mr. J. Hammond, of Bale, that his late father left a legacy of £100 to the Fund. The amount will be forwarded when the will has been proved.

The following is a list of new subscribers and donations received:—

*New Subscribers—*

P. J. Turner, Capt. A.V.C.	1	0	0
W. Stothert, Major A.V.C.	2	2	0
W. J. Young (also Life Member)	1	1	0
M. St. G. Glasse, Lt.-Col. A.V.C.	1	2	0

*Increased subscriptions—*

W. A. Hancock	1	1	0
T. Salusbury Price	3	3	0
E. W. Baker	1	1	0

*Donations—*

Bolton's Cinema	10	10	0
Shipley's Collecting Box		7	0
Midland Counties V.M.A.	10	10	0
W. W. Smart	1	1	0
Anonymous	10	0	0
Woodger & Broad	2	0	0
Mrs. Stuart		10	6
W. W. Anonymous	5	5	0
"Michael"	50	0	0

The donations will, of course have to be invested in accordance with bye-laws.

With regard to investments, there was received in donations last year the sum of £135 13s. 6d. Of this we invested £100 in War Bonds, leaving £35 13s. 6d. to be dealt with. Since 1st January the sum of £145 0s. 3d. has been received in donations, making a total to date available for investment of £180 13s. 9d. The sum of £100 13s. 11d. has been invested in the purchase of £183 7s. 4d. Consols, bringing our holding in Consols up to the round figure of £4000. There still remains, therefore, the sum of £80 which must be invested in accordance with bye-laws.

Our available balance for current relief is £70, which is only sufficient to carry us to the end of August. The

outstanding subscriptions, even if they were all received, will not be nearly sufficient to meet our present calls to the end of the year, and many of the cases on our books are really deserving an increase on the 10/- maximum we now pay.

As the Council by its reconstitution is now fairly representative of the profession, we suggest that the members should be willing to act as local representatives of the Fund. Printing and paper cost so much in these days that it is really an extravagance to charge the Fund with the cost of a general appeal by circular, when probably better results could be obtained by friendly propaganda. As one of our members well says, "It would do some of our non-subscribing members of the profession good if they could only see what 10/- a week means to some of the unfortunate one."

It was resolved:—That the report be approved, and that the heartiest thanks of the Council be conveyed to the donors. That a special vote of thanks be accorded to "Michael" for his very munificent gift.

*Cases.* It was resolved to continue the grant in cases Nos. 10 and 11 at the rate of 10/- per week.

Mr. Kelland reported the result of enquiries he had made in cases Nos. 22 and 24, and it was resolved:—(Case 22) That in view of the fact that the recipient is over 80 years of age and that one of her daughters is an invalid, the grant be increased to 15/- per week. (Case 24) That in view of the recipient's ill-health, the grant be increased to 12/6 per week, and that the case be recommended to the favourable consideration of the National Veterinary Benevolent and Mutual Defence Society.

The Hon. Secretaries reported that recipient No. 37, a member of the College, suffering from an insurable disease, to whom a grant of 10/- per week had been paid, had died in Middlesex Hospital, in April.

*Dates of Meetings.* It was resolved that the Quarterly Meetings of Council be held on the same dates as the Quarterly Meetings of Committees of the Royal College of Veterinary Surgeons.

## MEMBERSHIP EXAMINATION, R.C.V.S.

## CORRECTION.

The two names, Mr. H. V. Hughes and Mr. L. L. Jones, who passed the Third examination (p. 18, last week's issue) should appear under Liverpool instead of Edinburgh: and that of Mr. C. V. Watkins under Edinburgh in place of Liverpool.

It may be noted that as a matter of fact the students from Glasgow and Liverpool were examined at other centres—either London or Edinburgh.

## ABBRIDGED REPORT OF THE CHIEF VETERINARY SURGEON, SOUTHERN RHODESIA, 1917.

*African Coast Fever.* A fresh outbreak occurred on the farm Engwa, in the southern part of the Umtali district. The degree of infection was most intense—out of 149 head involved only 37 remain. There is no doubt that this outbreak was the result of a movement of cattle, under somewhat peculiar circumstances, from the southern part of Melssetter district two years previously, and that the existence of infection during this period was masked by the use of a dipping tank. Fortunately the infected area was in a very isolated position, and no extension of infection took place.

After over 11 years' freedom from disease, an outbreak occurred on the farm Lounton, Victoria District, situated in an isolated position, away from any main road or path, and over 100 miles from the nearest centre of infection. Shortly afterwards infection was discov-



ered amongst cattle on three immediately adjoining farms, and, after a lapse of several months, on two farms within a few miles and on the Victoria Common-age, about 25 miles distant.

[There are reports of minor outbreaks in other four districts. Those given here show some of the problems concerned in preventive measures.]

The number of fresh outbreaks during the year was 13, with a mortality of 43 head, as compared with 20 and 382 respectively for the previous year.

Short interval dipping is one of the most effective methods at our disposal of dealing with Coast fever. "No ticks, no Coast fever," is axiomatic, but under local conditions the former state is impossible of achievement. The complete eradication of infection is possible, however. It has been eradicated from many districts in Rhodesia and the Union, and it can be eradicated from those in which it at present exists. I have no hesitation in saying that if every area carrying infected ticks could be accurately defined the disease would be eradicated within a period of two years by our present methods. It may well be asked why these areas cannot be so defined and dealt with. The reply is, to my mind, very simple. In the majority of cases the disease has been in existence for several months (two years in the Engwa case) before it is brought to our notice. Meantime infection has been disseminated, which may and frequently does not manifest itself for another extended period, and so the cycle goes on, with the result that we are generally at the heels of the disease instead of in front of it. In dealing with the outbreaks, the known infected areas are a comparatively simple proposition; the unknown and unsuspected we cannot combat. To remedy this state of affairs universal compulsory effective dipping of cattle throughout the Territory has been proposed. Whilst the value of the proper use of the dipping tanks is fully recognised, it may be stated as a fact, and not as a matter of opinion, that weekly dipping, however effectively practised, will neither eradicate Coast fever nor prevent its spread. It is true that as ticks are reduced in numbers by dipping the chance of the disease being propagated and disseminated is correspondingly lessened; at the same time dipping may mask infection for an indefinite period and result in recrudescences on areas where it had been regarded as a thing of the past and in fresh outbreaks on previously clean areas. This point of view is clearly and concisely expressed in the Supplementary Report of the African Coast Fever Committee as follows:—"Such dipping may prevent any noticeable number of deaths when Coast fever exists, yet cattle moved from such areas may, and have been the cause of carrying the infection with them."

These remarks are not to be taken as reflecting any doubt in the writer's mind as to the value of dipping as a general prophylactic measure; they are simply intended to forestall the disappointment which is bound to result if a scheme of universal compulsory dipping at seven day intervals is relied upon for the eradication of Coast fever.

**Quarter-evil.** The mortality from this disease, which began in November, 1916, persisted throughout the year in Matabeleland, a total of 133 deaths being reported.

**Anthrax.** Three outbreaks occurred on farms in the Mazoe and Salisbury districts. The diseased carcasses were cremated and the in-contact animals, 615 head, vaccinated. The total mortality was nine head.

**Tuberculosis.** Although no case of the disease came under the observation of the Department, several head of Rhodesian cattle showed tuberculosis lesions on post-mortem inspection at the Johannesburg abattoirs.

**Contagious Abortion.** The existence of infection was diagnosed in four herds. Unfortunately there is no satisfactory method of treatment capable of adaptation

to local circumstances, but, as far as possible, infected animals are isolated, the aborted fetuses destroyed and the farm or area involved placed in quarantine for an extended period.

**Fluke Disease of Cattle.** This affection appears to be increasing. During the drought a heavy mortality occurred in various districts. A few animals were treated with *Extractum liquidum filicis*, B.P., with most promising results.

**Horse Sickness.** The total mortality reported was 107 head, mostly horses. As most of the mules in the country and a considerable number of horses have been immunised, and as many horses possess a certain degree of resistance from several years' exposure to infection, this mortality indicates a very heavy infection during the season.

**Rinderpest.** Early in the year reports were received from Veterinary Officer Hooper-Sharpe, attached to General Northey's Column in East Africa, that as a result of the many movements of cattle caused by the military operations rinderpest infection was spreading towards the border of Northern Rhodesia. Full reports of the excellent work done by this officer, under the most trying and difficult conditions, have already been submitted. The magnitude of the work of dealing with rinderpest in such a large area and the menace to the whole of South Africa by the southward spread of infection were realised by all the Administrations concerned, and Mr. C. E. Gray, Principal Veterinary Officer of the Union, was appointed Commissioner in charge of operations, and proceeded to East Africa with a staff of veterinary surgeons and complete equipment. The latest reports show that satisfactory progress has been made in combating the disease and that there has been no further extension southward.

J. M. SINCLAIR, Chief Vety. Surgeon.

The foregoing outline of the work in Southern Rhodesia for 1917 offers little of direct interest to the home practitioner. Rinderpest is a forgotten threat in this country and the note on the fight that the South African Veterinary Service are making against it in East Africa will not come home to the understanding of many practitioners here.

African Coast Fever is probably more familiar—at any rate by name—to the younger members, and it bulks largely among the many problems to be faced in Africa. This is exemplified by the reports to hand of "Committee of Enquiry on African Coast Fever, Quarter Evil and Epizootic Diseases of Cattle." Why this enquiry was instituted is not definitely stated, but there is evidence of differences and of dissatisfaction in, at least, a section of the farmers, in the remit to the Committee, which runs:—

(1) To enquire into and report on the origin of and circumstances attending recent outbreaks of African Coast Fever.

(2) enquire into and report on the adequacy of the measures taken hitherto to prevent and suppress African Coast Fever, and to suggest other measures.

(3) enquire into and report on the circumstances attending the recent outbreaks of quarter-evil; and

(4) consider measures for the control and prevention of epizootic diseases of cattle:

Five gentlemen were appointed for the purpose, with a "request that you, or any two or more of you, do, as soon as the same can conveniently be done, using all diligence, report to me your proceedings in writing." And the necessary "power to enquire of and concerning the premises by all other lawful ways and means whatsoever." It is dated, Salisbury, 10th Aug., 1917.

It may be noted that no veterinarian is included—very possibly because the right men could not be spared

in this time of pressure. Their first meeting was held on 13 Aug. and their Report is dated 26 October, 1917, signed by four of the members, and a Supplementary report, by the fifth member, dated 1st Dec.

Obviously, charges (1) and (2) of the remit indicate the chief points of the trouble.

The principal report is a fairly full one, and covers 19 pages of foolscap. It includes many subsidiary questions not distinctly specified, but which are necessary for a full consideration of the question. The following extract is one of several similar, and gives some idea of the position. The whole report is of interest as a chapter in the history of the fight against a disease of cattle.

"The outbreak at Melsetter was reported to the Veterinary Department in August, 1914. It occurred on the farm Nooitgedacht, where no disease is known to have existed since 1904, and at a very considerable distance from the seat of a previous outbreak in 1912. The local Cattle Inspector diagnosed the disease as African Coast Fever, and took prompt action by instituting temperature camps and removing healthy animals to clean veld. On the arrival of the necessary outfit, spraying was resorted to in the absence of a dipping tank. As soon as the Cattle Inspector's diagnosis was confirmed by an examination of blood smears, a veterinary surgeon was despatched to take charge. The methods adopted resulted in a total cessation of mortality in a short time. The survivors of the herd were retained for some five months on clean veld. Thereafter they were allowed to return to infected ground, and disease again broke out among them. The owner of the cattle holds the Veterinary Department responsible for this movement. This is strenuously disputed by the latter. If it is desired to decide between this direct conflict of evidence by the assistance of surrounding circumstances, it might be said, on the one hand, that the owner would not court disaster by removing his property to a dangerous area, and on the other hand, that the veterinary officers who had taken pains to eliminate disease from the herd were not likely to subject it to inevitable re-infection. There is evidence that the owner maintained that the disease was gall-sickness, and threatened to shoot the officer in charge if he destroyed any of the cattle; it is not, therefore, improbable that a person holding these views would see no risk in removing the animals on to infected veld.

The outbreak at Nooitgedacht was followed by others, often at places widely separated, until 39 farms were infected by the middle of 1916. Many theories have been advanced as to the cause of this dissemination of disease. The veterinary surgeon now in charge bluntly attributes it to cattle straying, or illicitly moved, from infected veld. A large section of the local residents warmly resents this view, and ascribes the spread of the disease to the laxity of the veterinary staff and the carrying about of infected ticks on grass, hides, dogs, etc. Some regard the veterinary officers and police, with their retinues, as most likely to have carried ticks, and thereby the disease, from the infected areas in which they had been carrying out their duties. The veterinary surgeon, in response to the question why, if illicit movements took place, prosecutions did not follow, stated that although there was a moral certainty of such movements, it was impossible to secure legal proof, and instanced a case of a person giving him information of an illicit movement which he was unwilling to give in a court of law."

But the professional question to which the chief interest attaches is Compulsory short interval dipping for the whole country. The Supplementary report is mainly devoted to arguments in favour of this procedure: indeed one might imagine that this reporter went to the Committee as the advocate of the Agricultural Union,

with a creed that universal compulsory dipping is the one way necessary to rid the country of the disease.

Against this it is contended that—whilst it is fully recognised that effective compulsory dipping is an absolute necessity in controlling the disease—dipping at seven days interval, which has since been provided for by an Ordinance, will not, and cannot, *per se* clear the country of the disease. The conclusion of Mr. Watkins-Pitchford, in his work on "Dipping and Tick-destroying agents," is clear on this. He says:—

"Our knowledge of the disease East (African) Coast Fever and of the life history of the brown tick—the chief transmitter of the disease—shows clearly that if we are to make sure of destroying the tick—and with it its infectious germ—we must attack it during the brief space that it spends engorging itself upon the blood of its host, the ox, and if we fail to ensure its destruction during this brief interval it will, by its survival, involve us in the risk of the perpetuation and extension of the disease. If, therefore, we are to make sure that no tick is to survive, which once gains access to its host, our destructive attacks must be so timed as to leave no interval during which a tick may engorge itself and—potent for further mischief—leave the body of its host.

When we learn that a brown tick may complete one of its periods of attachment to its host in so short a period as three days—or even less—we shall see that our attacks (if we are to cut off all possibilities of escape) must be at correspondingly short intervals."

It is this "three-day feed" in the life cycle of the *Rhipicephalus* which makes the seven-day dipping interval sufficient to reduce the amount of infection, and, as they say, to "mask the disease." And so long as this condition persists the disease will be existent in the country, since larvae and nymphæ may become infected in three days, and are able to transmit the disease during the following stage of their cycle. Numerous instances have occurred in the field of outbreaks in herds which have been regularly dipped at seven-day intervals. Such outbreaks are usually easily dealt with, and as a rule with a very low mortality.

Three-day dipping as a general preventive measure is, of course, not a workable proposition.

The following sentences are findings of the Committee on the question of suppression and prevention—No. 2 of the remit:—

"The preponderance of evidence taken by the Committee does not show that the system of dealing with outbreaks could be improved upon."

"The Veterinary Department claims that although it has not eradicated African Coast Fever, it has succeeded in keeping it in control, and points to the cleaning up of Matabeleland, and the comparatively small number of deaths from the disease. The return furnished showing the number and distribution of outbreaks and the resulting mortality, bears out this claim."

"As we are satisfied as to the efficiency of the methods resorted to for stamping out disease in the specific localities where it is detected, we have nothing to suggest in that direction. As to the prevention of the disease, it has been already indicated that we consider that this can best be done by the destruction of the tick, and we believe that such destruction can for all practical purposes be gradually accomplished by the adoption of universal dipping."

And in a further report by two of the Committee who were deputed to confer with the authorities of the Union S.A. in continuance of their enquiry, it is stated:—

"We have carefully studied the methods adopted in the Union in dealing with actual outbreaks of disease and preventing its spread. It does not appear necessary to detail them here, as they are no better calculated to

accomplish their object than those at present in operation in Rhodesia. Under the Union law, cattle illicitly moved are subject to destruction; it is said that the application of this law has had a most marked effect in preventing illegal movements. It is doubtful whether the evil of such movements in Rhodesia requires such drastic action."

There we must leave this interesting report for the present.

#### PARLIAMENTARY.

In the House of Commons, July 18th, 1918.

##### LIVE STOCK.

Mr. PROTHERO: . . . As to live stock, veterinary science has now got a magnificent laboratory equipped in Surrey, and I hope it will lead to a great advance. The health of the live stock has been on the whole extremely good. There has been parasitic mange among horses, but there is a great reduction in sheep scab, and up to a few days ago I could have said a great reduction in swine fever, and that in spite of the fact that the Board early last year relaxed its regulations in order to encourage the upkeep of pigs. The numbers of the live stock in England and Wales may be of interest to the Committee. I will compare the returns of June 4, 1916, and June 4, 1917, with the estimate for June 4, 1918. In the number of dairy cattle there was an increase in the present year on the figures of both the preceding years. The number of beef cattle over one year old shows a slight diminution on the figures of 1917, but an increase on those of 1916, and that of all cattle under one year shows an increase over both periods. The total net result is a diminution of 27,000 head of cattle on the figures of 1917 and an increase of 330,000 on the pre-war period of 1914. The number of sheep shows a decline. This was mainly due to the disastrous lambing season of 1917. It has already been partly counteracted by the more favourable season of 1918.

The pig population of the country declined last year very seriously from October onwards, but the decline has now been arrested. Individual land-owners have taken up the question of increasing the number of pigs with great vigour. In Gloucestershire, for instance, the hon. member for the Wilton division has been instrumental in establishing 65 pig clubs. The Rural League has set up 130 in different parts of the country, and many agencies are working in the same direction. Were I quite sure of the supply of foodstuffs and its distribution, I should regard the situation as promising.

July 22, 1918.

##### THE LABORATORY OF THE BOARD OF AGRICULTURE.

Sir R. WINFREY, Parliamentary Secretary to the Board of Agriculture (Norfolk, S.W.), replying to Mr. Runciman regarding research work in animals' diseases and the immunization of animals from native and tropical diseases, said:—I am glad to say that the Board's laboratory at Addlestone, near Weybridge, is now practically completed, and that already several scientific investigations have been undertaken there. The chief of these are in regard to louping-ill and the poisoning of cattle by ragwort and by bracken. Useful results have been obtained in all of them, especially in regard to louping-ill, a disease which has for many years placed a heavy burden on sheep farmers in various parts of the United Kingdom. Its cause and the method of its spread have been discovered, and it seems quite possible that the remedial measures necessary will be such as can be carried out without the need for restrictions on the movement of sheep.

As regards preventive medicines, the laboratory pre-

pares and sends out anti-swine fever serum at the rate of about 6000 doses per month, and anti-abortion vaccine at the rate of about 1700 doses per month. The best methods for immunizing British live stock against tropical diseases before export are also continuously under consideration, and I understand that good progress has been made in this study.

The laboratory staff has been depleted by recruiting for the veterinary services of the Army, and it is feared that some of the work may have to be suspended if any further men are taken for military service. I am of opinion that the laboratory, which, as the House may remember, owes its existence mainly to the efforts of my right hon. friend, is doing excellent work, and, as regards the future, will play a considerable part in agricultural re-construction.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

William Anderson, Keith	£1 1 0
F. G. Ashley, Dalston	1 1 0
Francis A. Ball, Ormskirk	1 1 0
Geo. L. Bradley, Lieut. A.V.C.	1 1 0
John Arthur Brew, Capt. A.V.C.	1 1 0
John Cameron, jun., Capt. A.V.C.	1 1 0
Dr. W. H. Dalrymple, Louisiana, U.S.A.	1 1 0
John Bowden Garside, Lieut. A.V.C.	1 1 0
David Hamilton, Ballina	1 1 0
E. P. Hearne, Major A.V.C.	1 1 0
Charles Holland, Capt. A.V.C.	1 1 0
H. L. Jones, Beira, P.E.A.	1 1 0
T. J. Lewis, Lieut. A.V.C.	1 1 0
E. S. W. Peatt, Capt. A.V.C.	1 1 0
William Penhale, Holworthy	1 1 0
Charles W. Perrin, Capt. A.V.C.	1 1 0
John F. Rankin, Major A.V.C.	1 1 0
Stewart R. Rippon, Capt. A.V.C.	1 1 0
W. L. Sheffield, Capt. A.V.C.	1 1 0
J. M. Smith, Capt. A.V.C.	1 1 0
Guy Sutton, Major A.V.C.	1 1 0
Previously acknowledged	897 18 5
	£920 19 5

#### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, July 19.

##### REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. J. Y. Bogue (T.F.) to be actg. Maj. whilst specially empled. (June 29).

To be temp. Lieuts.:—L. Senécal (May 22); W. S. Grogan (May 28).

July 20.

To be actg. Lt. Cols. whilst Asst. Dirs. of Vety. Serv.:—  
Maj. E. J. Wadley, D.S.O., Capt. (temp. Maj.) E. W. Parks (T.F.), Capt. (actg. Maj.) H. C. Jagger (T.F.) (Feb. 25); Temp. Maj. J. W. F. Brittlebank, C.M.G. (June 29).

Temp. Capt. J. McC. Jamieson relinquishes his commn. on acct. of ill-health contracted on active service, and is granted the hon. rank of Capt. (July 21).

Temp. Qrmr. and Hon. Lieut. to be Hon. Capt.:—J. McNaught (July 7).

July 22.  
Capt. A. E. Webber, from E. Africa Vety. Corps, to be temp. Capt. (June 18).

To be temp. Lts.:—S. C. McKee (May 22); H. H. Wolf (May 26); T. B. Doll (June 5).

July 24.  
Capt. to be Maj.:—P. V. Beatty (Nov. 2, 1916, sen. from July 10, 1915) (substituted for notification in *Gazette*, Jan. 17, 1917).

#### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

July 18.  
Capt. C. Drabble to be acting Major whilst comdg. a Veterinary Hospital (July 1).

July 22.  
Capt. P. S. Morgan to be acting Major whilst comdg. a Veterinary Hospital (July 1).

July 23.  
Sec. Lt. D. O'Kell, from Lond. R., to be Lt. (July 24).

#### The primary cause of Shock.

In an article published under this title in the *Medical Record* for June 2nd, Dr. Fenton B. Turck has summarised his extensive observations on surgical shock, and has put forward a theory as to its causation. The starting point of the author's theory is his belief that injured tissue at once begins to undergo self-digestion, leading to the production of toxic albumina which when absorbed are deadly poisons. He finds that the stomach, intestines, and liver are the organs most severely affected by these "shock poisons," and that the nervous system is not primarily involved in shock. The possibility of producing immunity against shock forms a natural development of this conception, and the author holds that a high degree of immunity can be induced by injecting into an animal repeated and increasing doses of the homologous autolysed tissue. In the course of his experimental study of shock, Dr. Turck found that the intravenous injection of peptones brought about a condition of shock similar to that following on severe wounds or mechanical injury to the tissues; the same condition was produced by the injection of autolysed muscular tissue. In one series of experiments Dr. Turck shut off a limb by elastic ligatures from the general circulation and then mechanically injured the muscles peripheral to the ligature, thereby "liberating and disintegrating cells" and permitting autolysis to occur. After a variable interval the elastic ligature was removed and the free autolysed cells and their products were allowed to enter the general circulation; this procedure promptly caused severe symptoms of shock. Shock also occurred if the autolysed muscle tissue was transplanted into another animal or if the extract of such tissue was injected into another animal. Dr. Turck's work on the possibility of producing in man immunity against wound shock is still in progress, and obviously many difficulties have to be got over before the conclusions are accepted.

#### Anærobcs in soil-infected wounds.

In the course of work for Sir David Bruce's Tetanus Committee, at the Bact. Lab., Dartford War Hospital, Mr. Henry Goodale, O. i/c., was able to collect evidence respecting anærobcs from a large number of cases. From these he states the following conclusions:—

1. That anærobcs or their spores persist in the deep tissues around bone and in scars after wounds have healed, or when they are covered with healthy granulations that give nothing but staphylococci on culture.

2. That anærobcs can find their way from an infected wound of the extremities to the serous cavities of the brain and pleura, and are found in these localities in connexion with meningitis and pleurisy.

3. The anærobcs are found in metastatic abscesses of the lung resembling in type the organisms found in the soil-infected wound of the patient, and the symptoms of these patients are those of general septicæmia.

I have not entered into any speculations as to the precise way by which anærobcs find their way from one part of the body to another; it appears certain that they produce a substance that paralyses the polymorphonuclear leucocytes and inhibits phagocytosis, this being one of the factors which accounts for the rapid progress of acute bacillary gangrene.—*The Lancet*.

#### Personal.

From *The London Gazette*, 16th July.

Master of Horses Office,  
Royal Mews, Buckingham Palace,  
12th July, 1918.

The King has been graciously pleased to appoint Mr John Willett, M.R.C.V.S., to be an Honorary Veterinary Surgeon to His Majesty.

Professor GAIGER had a successful meeting of sheep breeders at Inverness on Friday, 12th inst. The northern flockmasters are keen on the investigation of diseases. The Inverness meeting was a good hit.—*The Scottish Farmer*.

#### OBITUARY.

WILLIAM JAS. JOHNSON, M.R.C.V.S., Fountainville Av., Belfast. Graduated, Glas.: April, 1880.

Mr. Johnson died 13th July, aged 58.

Mr. GEORGE FOWLER, who practised as a Veterinary Surgeon in Aberdeen and subsequently in Glasgow, died on May 1st, aged 75 years. He took the H. & A. S. certificate in 1868.

Evidence was furnished that British pedigree stock continue to hold high favour by the prices paid at the recent sale at Chicago of Shorthorns exported from this country. The yearling bull Rodney, bred by Captain Jolliffe, of Newbus Grange, Darlington, was purchased by his exporter at the Birmingham Show and sale for 1100 gns.; at Chicago he was sold to Mr. Black, of Mansfield, Ohio, for 4000 gns.

It is stated that the seven-months-old Holstein bull, Champion Sylvia Johanna, was sold by auction on June 7th last, at Milwaukee, Wis., for 106,000 dollars (£22,000). This calf was bred at the Avondale Stock Farm, Brockville, Ontario, owned by Mr. A. C. Hardy.

Commenting on some recent big prices, the *Live Stock Journal* expresses the hope that there is some guarantee that the high prices which have been made this year are genuine, and are not faked merely to put one breed's price records in front of the other.

**"HARRY."**

I was caught in Massachusetts, I was put aboard a train,  
And unloaded at a camp near Boston Bay,  
Then they tested me for glanders, and shoved me on a  
I was treated in a most alarming way. [boat,  
I was sick, and kicked, and bitten, I was fed on foreign  
The man who waited on me was a fool; [food;  
I didn't understand it, or know the reason why;  
But I always kept my end up—as a mule.

Then they landed me in England, and stood me in the [mud;  
I was home-sick for the blue-grass and the plains.  
They put iron on my feet, and iron in my mouth,  
And they loaded me with leather, and with chains;  
I was chased with whip and rowel, until I learnt to pull,  
I was hurt, yes, hurt and frightened something cruel;  
But through my education, as the humble friend of man,  
I guess I kept my end up—as a mule.

Then I found myself in Flanders—just three years ago [to-day,  
I've worked ration dumps from "Wipers" to Peronne;  
I've been wounded twice, and have had to leave my mob,  
But, I must say, I was treated "très, très bon."  
Now I'm back at work again, yes, I'm going, thank you,  
My driver tells me I'm "a perfect fool." [strong.  
He knows that, up the line, I'll never let him down—  
That I'll always keep my end up—as a mule.

And when this war is over, and the Bosche is down and  
Will I see dear Massachusetts once again? [out,  
I guess I'm not a quitter, and I mean to see it through,  
But I'm longing for the old familiar plain.  
Yes, I mean to see the finish, if I don't go "West" before.  
On our winning, well, I'll bet the blinkin' pool.  
When you catch him, just bring Kaiser Bill to groom me  
And I'll surely keep my end up—as a mule. [once.  
"S. & S."

[The contributor who sends the foregoing, dated from a Vet. Hospital, says:—"Although it may not be quite the style of literature which you desire, we have hopes that it may at least cause a few moments relaxation to many country practitioners, after a strenuous day's work."

**Value of Milk Records.**

At the Annual General Meeting of The British Dairy Farmers' Association, held at 28 Russell Square, London, W.C., last month, a member drew attention to the great benefits he had derived from the introduction of a milk record for his herd. So greatly was he impressed with the value of milk records that he urged the Association to use its influence to make them more general, and would himself even go so far as to say that he thought it would be greatly to the benefit of this country if they were made compulsory.

Several speakers confirmed the statement that where introduced they had been found of the utmost value.

**DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.**

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)			(a)	
GR. BRITAIN.											
Week ended July 20	3	3				2	50	71	1	31	16
Corresponding week in											
1917 ...	5	5					34	60	2	35	12
1916 ...	6	7			1	1	29	47		87	69
1915 ...	7	13			1	10	23	71	1	82	414
Total for 29 weeks, 1918 ...	151	169			22	62	3156	6051	246	845	323
Corresponding period in											
1917 ...	308	352			15	27	1696	3352	390	1543	659
1916 ...	338	399	1	24	32	84	1565	3595	178	2895	8330
1915 ...	381	436			30	57	‡502	‡1105	159	2617	11902

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities ‡ Counties affected, animals attacked:—London 2  
Board of Agriculture and Fisheries, July 23, 1918 Excluding outbreaks in army horses.

IRELAND. Week ended July 13	...	...	...	...	...	...	Outbreaks 3	5	...	1
Corresponding Week in										
1917 ...	...	...	...	...	...	...	...	1	6	24
1916 ...	1	1	...	...	...	...	1	3	6	31
1915 ...	...	...	...	...	...	...	4	2	2	11
Total for 28 weeks, 1918 ...	2	2	...	...	...	...	79	182	12	45
Corresponding period in										
1917 ...	3	5	...	...	1	1	29	235	150	960
1916 ...	3	7	...	...	...	...	38	232	175	1006
1915 ...	1	1	...	...	1	3	40	260	146	847

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, July 15, 1918.  
NOTE.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1568.

AUGUST 3, 1918.

VOL. XXXI.

## CANINE PRACTICE.

Many of us can remember the long neglect of canine practice by almost the whole of the profession in the nineteenth century, and the subsequent sudden popularisation amongst us. Some, stimulated by the success of a very few pioneers, took it up seriously before the advent of the motor; nearly all others did so afterwards. Many were forced to it by the loss in horse practice which the motor had caused them; and plenty of practices would have ceased to exist without the addition of canine work. Canine practice was a veritable godsend to the profession at that time; but many who thankfully availed themselves of it must have wondered at their long neglect of a line of work so readily available. It had been lying ready for us for decades, and we had despised it.

At present, it seems possible that some members may be tempted to again slight canine practice. It is now less profitable than it used to be, and may not improve in that respect for a long time. A stronger and more worthy reason is that most of the few veterinary surgeons remaining in civil life, especially those in the country, are now fully occupied with patients of much greater national importance than dogs. The two reasons together may lead some to neglect their canine practice; but a wiser course would be to retain what they can of it.

We are now called in to many animals whose value five years ago would not have justified veterinary treatment; and we are too few for the work. Neither the present inflated value of live stock nor the paucity of country practitioners will last for ever. Agricultural practice will retain much of the importance it has gained in the last four years, and canine practice may never again be quite so lucrative as it once was, but the latter will always be a useful adjunct. It would be well, therefore, despite the stress of other work, to neglect it as little as possible.

Canine work may again become indispensable to many practitioners; and in that case those who have continued it will follow it with better prospects than others who only take it up under compulsion.

## A BENEFACTOR.

Under the will of the late Mr. Clement Stephenson, F.R.C.V.S., the Victoria Veterinary Benevolent Fund benefits to the extent of £5000 free of legacy duty. The bequest is conditional on the Fund becoming Incorporated, and upon the benefits of the legacy being distributed in accordance with directions given. We understand that the R.V. College at Camden Town also benefits under the will.

## THE CENTRAL VETERINARY SOCIETY.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

An ordinary general meeting was held on Thursday, July 4, at 7 p.m., at 10 Red Lion Square; the President, Prof. G. H. WOOLDRIDGE, occupied the chair.

The following Fellows signed the attendance book:—Messrs. N. Almond, J. B. Buxton, W. R. Davis, A. E. Gostling, R. C. Irving, H. D. Jones, H. King, W. S. King, J. W. McIntosh, F. G. Samson, S. H. Slocock, W. N. Thompson, F. W. Willett, W. Willis, and Hugh A. MacCormack, Hon. Sec.

*Minutes.* On the motion of Mr. Slocock, supported by Mr. Irving, the minutes of the previous meeting were taken as read.

Prof. WOOLDRIDGE called attention to the fact that, in accordance with the decision of Fellows, expressed at the previous meeting, he had forwarded the resolution then passed to the Director of National Service, and received his reply, regretting that he was unable to assent to the proposal. The correspondence had already been published in *The Veterinary Record*. Subsequent to that correspondence an alteration had been made, and the resolution submitted was accordingly found to be superfluous. A new Order had been issued, exempting veterinary surgeons between the ages of 43 and 50 from being called up.

Informal discussion took place, and the consensus of opinion on the part of Fellows was favourable to the action which the Central Veterinary Society had taken.

*Correspondence.* The SECRETARY stated that he had received a letter from Mr. J. Willett, regretting his inability to attend, and at the same time acknowledging the letter of sympathy which the Society had forwarded to him on the death of his wife.

It was announced that a pamphlet had been received from the Agricultural Research Institute at Pusa, India, bearing the title: "Experiments with Emulsions for protecting Camels against attacks of Blood-sucking Flies," by H. E. Cross, M.R.C.V.S., etc.

On the motion of Mr. Almond, supported by Mr. Thompson, the Secretary was asked to acknowledge the pamphlet, with thanks.

## MORBID SPECIMENS.

Mr. H. D. JONES submitted a case of Keratoma. The horse had been lame for some time, and had been supposed to be lame from pyramidal disease. A posterior tibial neurectomy was carried out, and the horse worked sound for about two years. After the animal had been unnerved the keratoma was discovered. There was occasional suppuration accompanied by temporary lameness. An interesting point was the condition of the pedal bone—the large depression caused by the keratoma. Finally the pedal bone fractured, and the animal had to be destroyed. These tumours were more frequent than is supposed; they need careful searching for, and a large number of animals are lame from them. Extirpation is not always successful, the tumours frequently recur, and the animals often remain lame after removal.

Mr. MCINTOSH remarked that he had had two cases of Keratoma to deal with quite recently, and he had



operated successfully in both cases. The keratoma in each case was in the hind foot, a short way up from the toe. The method of removal was quite simple. He cut out a V shaped piece of horn—the point of the V being well above the keratoma—in one case extending to the coronary band, put on a “tip,” filled up the opening with dressing, and applied a blister round the coronet. After three months rest the animals were able to resume work. The horn is now perfectly sound, and there has been no recurrence of the growth.

Mr. F. W. WILLETT recalled an instance that happened three years ago, in which the horse went to work a week or ten days after operation, and had been at work ever since; at all events, nothing more was heard of the case. He had not put a blister on the coronet—it was not necessary.

The position of the keratoma in this case was in the region of the second heel nail hole on the inside of the off hind foot, which made it easy to relieve the pressure and lameness by applying a bar shoe.

Prof. WOOLDRIDGE said that he had operated as Mr. McIntosh had done for the condition under discussion. He had grooved the hoof on each side of the keratoma, leaving a space at least half an inch wide of the latter, and had stripped the horn right at the front from the toe to the coronet top, and the cases had usually been quite successful. The animals had gone to work in a month or so, with the protection afforded by the bar bandage. A little pellicle of horn always grew over the sensitive structure right away. He feared he had only been able to keep the horses under observation about a year afterwards, during which time there had been no recurrence; whether anything had happened later he could not say. His experience, however, would justify him in repeating the procedure in future cases. After thinning the wall with a rasp, he made a groove through the horn down to the sensitive laminae, and underneath to the quick of the white line. He then took hold of the protruding horn with the pincers, and stripped up from the bottom to the top. He put on a bar shoe. There was a tendency to slight hypertrophy of the laminae, owing to release of pressure. This could be controlled to some extent by a tightly rolled pad of tow or wool bandaged firmly in. There was no need to wait for the horn to grow down before sending the horse to work; the animal would have a groove down the front of the foot, but could work soundly.

Mr. F. W. WILLETT introduced a case of rupture of the rectum in a mare in service. The mare was still living six weeks after the occurrence, and was seen by Mr. Slocock and himself just before it was destroyed. He had seen the mare three or four times, and had no idea of the rupture: being on grass, and the bowels relaxed, there was no indication of the trouble. The animal had fallen away considerably, and when the speaker first saw her she had a slight discharge from the eyes and nose, which suggested a chill and debility. He had watched her on one occasion for some time and noticed that she crouched now and then and lifted her hind legs as though in abdominal pain. He suggested to the owner that the mare was colicky, and enquired whether she had been so before; whereupon the owner stated that he had noticed the condition previously. The speaker then made a rectal examination and found the rupture. The owner then remembered that five or six weeks earlier the stallion which served the mare had penetrated the rectum. The owner stated, however, that there was very little bleeding. She was subsequently properly served, and nothing further thought of the matter; the mare had continued to work. It would be seen that the peritoneal coats of the bowel were congested, and there were several abscesses.

Prof. WOOLDRIDGE asked whether any Fellows had had experience of rupture of the rectum during proper service *per vaginam*. Such ruptures were said to occur

in cases where the rectum was full of faeces. [Mr. Irving remarked that while he had heard of such cases, he had not met any].

Mr. SLOCOCK could not believe that rupture would occur in service other than into the rectum. He had seen the mare referred to, in company with Mr. Willett. The mare was wasting, and he was willing to believe that six weeks before she had been in quite big condition. The mare drank a little from the water trough, but showed no abdominal pain, or any symptoms attracting attention to that part. On passing his hand into the rectum, he found distinct stricture and evidence of rupture right at the roof, about a foot in. The faeces were semi-fluid. He did not know whether they might have strained through the small orifices by constriction. The mare then evinced considerable pain and crouched, but he believed the pains would only exist at times of defaecation or attempted defaecation. He assumed that the horse was not much bigger than the mare; otherwise he did not think the rupture would have been so much at the roof. Had it not been for the distinct stricture of the intestine he would have thought there was a chance of recovery; as it was she was useless. He did not accept the opinion that the responsibility rested with the owner of the stallion for improper service.

General discussion ensued on the question of responsibility, Mr. Irving contending that proved negligence would entail this. Mr. Slocock argued that it was difficult to determine negligence, which might be attributable to the man with the mare or the man with the stallion; the question was not one of control. Mr. Irving—A stallion entering the rectum of the mare would get twisted, and be out of control. Prof. Wooldridge said that, at the actual time of service, the passage of the penis should be observed by some competent person, and the provision of such an attendant was a responsibility of the owner of the horse. Mr. McIntosh believed Mr. Davis's view to be correct. He further believed that in an action for improper service judgment went against the owner of the stallion. He thought the owner of the stallion would certainly be liable if improper service were proved; such as service per rectum. Mr. Davis believed that in the case referred to by himself and Mr. McIntosh the evidence showed that the service was correct, but rupture was caused by the presence of a mass of hard faeces. In answer to Prof. Wooldridge Mr. Willett stated that the post-mortem revealed no faeces in the peritoneal or pelvic cavity; the rupture was partial, not complete, being only at the roof, a fact which kept the faeces from passing through the rent.

### ACNE AND IMPETIGO.

By PROF. G. H. WOOLDRIDGE, R.V.C., LOND.

These two diseases of the skin are included in the term *Ecthyma*, which may be defined as a localised dermatitis characterised by the formation of pustules, which may be superficial in character, or deep-seated and result in some loss of structure.

### ACNE, PIMPLES, BOILS, FURUNCULUS.

Acne is a folliculitis of the skin, *i.e.*, an inflammation of the hair follicles or the sebaceous glands, resulting in the formation of pustules. The lesions are circumscribed and may be comparatively superficial as in *pimples* or they may be deep-seated, involving the deeper structures of the skin. When the latter lesions are single or isolated they are called *boils*; when they are small and appear in crops they are called *furuncles*. Acne is generally due to the entrance of pyogenic organisms which have gained access through the orifices of the skin or into the hair follicles as the result of rubbing. In fact it may be regarded as a “rubbed-in” dis-

case; consequently it is met with mainly in those parts of the body which are exposed to rubbing by harness and other objects. In this way it may be met with as a complication in strangles in horses. It may also be brought about by the choking up of the ducts of sebaceous glands.

A lesion practically indistinguishable from acne may also be brought about by biting flies. Another smaller pustular eruption may be produced by the application of certain medicaments, such as iodine, tar, vaseline and other chemical irritants. In these instances the lesions are variously due to choking up of the glandular ducts, or to chemical irritation, or both. The lesion set up by the invasion of the skin by the parasite *demodex folliculorum* accompanied by staphylococci in any species is a form of acne. Acne appears to be more frequent in the spring and summer than in cold weather. All species of animals are susceptible, but it is most frequently met with in horses, sheep and dogs.

**Symptoms.** The lesions may occur in any part of the body, but, as already indicated, they are most likely, in horses, to be met with under the collar, saddle, or along the sides, or at any place that may be rubbed by the harness. In the dog, the lesions are frequent about the head and under the abdomen, while in sheep they are principally found inside the elbows and thighs.

In simple acne (pimples) the pustules are very small and rarely exceed the size of a lentil. If examined early the lesions may be felt as small elevations, which in a day or two become pointed and contain a small amount of pus-like material. They are usually numerous and are painful, but are not invariably so, and the skin carrying them can be freely moved about over the subcutaneous tissues.

In the more severe form (boils and furuncles) the lesions are deeper seated and may involve the whole structure of the skin. They are hot and painful, and surrounded by a zone of hyperæmia. The affected animal resents manipulation of the part, and horses will cringe away when the part is approached, even before it is touched. The lesion cannot usually be moved about so freely on the underlying structures. When mature it has a yellow point in the centre which bursts, giving exit to pus; sometimes there is a small necrotic core. At other times the painful lesion appears to subside without pointing or bursting (blind boil). Boils or furuncles under the collar in a horse may cause the animal to become a jibber.

The duration of the lesions depends upon the depth of skin involved. In the superficial form it may only last a few days or a week, while in the deep seated form it may be two or three weeks before recovery occurs. During this time other lesions may crop up, so that the affection may become prolonged. Healing in the deep-seated form leaves a more or less permanent mark which may be attended with loss of hair or a change in its colour.

In folliculitis due to blocking of the sebaceous glands, an accumulation of curdy material takes place and causes a local swelling, which may vary from the size of a pea to a pullet's egg. These are called *sebaceous cysts*, or comedones. The walls of these cysts may actually degenerate and calcify and are then easily dissected out.

Except in very severe cases acne does not set up systemic symptoms.

**Contagious Acne.** A variety of acne in the horse is undoubtedly contagious and is due to the *Preis-Nocard bacillus*. It is often called American skin disease. This also occurs in two forms—superficial and deep. In the former the lesions are very numerous, occurring chiefly on the shoulders and sides. They are very superficial, practically painless, and do not leave any permanent marking. There is a great disposition to spread all over the surface of the body of the affected

horse, and to other horses, by means of grooming utensils, rugs, harness, etc. This affection is said to have been introduced into England with Canadian horses in 1879, but it was already in existence on the Continent of Europe before that date.

A much more severe form occurred in Great Britain in 1913-14, and was also said to have been introduced from the American continent. In this outbreak the lesions were less numerous, but more deep-seated, very painful, and not nearly so amenable to treatment. I observed numerous cases in which the affection lasted for months, and not infrequently animals affected had to be destroyed.

*In sheep*, the lesions of ecthyma occur commonly in the parts devoid of wool, such as inside the thighs and elbows. They are pointed and contain pus, but unless very numerous cause very little systemic disturbance. Occasionally lesions of acne are met with along the middle of the back, and the fleece of that part is ragged and torn. This is not infrequently due to the use of a too irritant sheep dip; and care should be taken to avoid confusing it with sheep scab. It is common to find several sheep simultaneously affected, but there is no direct evidence of contagion.

*In swine* the lesions of acne are usually black spots, and are due to *demodex folliculorum* or to inturned hairs.

**Treatment: horses.** In the superficial diffuse form, the skin should first be soaked with a hot solution of sodium carbonate, to soften the epithelium to allow the subsequent dressings to penetrate better. The condition then yields readily to the application of simple disinfectants, such as 2% creolin solution; ol. picis  $\mathfrak{z}$ i, ol. rapi  $\mathfrak{z}$ x; ung. salicylici 1:20; or sulphur liniment (sulph. sub.  $\mathfrak{z}$ ii, potass. carb.  $\mathfrak{z}$ i, ol. picis  $\mathfrak{z}$ i, ol. rapi  $\mathfrak{z}$ x).

In the more severe forms as in boils, local pain must be reduced by hot fomentations such as hot water, or antiseptic poultices, and when mature the boil should be lanced with a crucial incision and its contents—pus or necrotic core—removed. It must then be treated with a strong disinfectant as a first dressing, such as pure phenol, or tincture of iodine; and subsequently treated as a simple wound. The phenol is very conveniently applied by dipping a probe or small grooved director into it and inserting the point into the centre of the lesion. It frequently happens in horses that after such a lesion has completely healed there remains for a considerable time some irritability of the part such as may actually cause lameness if under the collar.

In the severe form of contagious acne good results are very difficult to obtain. In such cases an autogenous vaccine may be tried. Internally a course of tonics should be prescribed, such as arsenic, iron, strychnine, quinine, and sulphur. Thorough disinfection of harness, clothing and grooming utensils should be carried out, and also the stable and any places where the animal may have rubbed, such as shafts, etc. When the contagious variety is suspected isolation should be practised. Affected horses should not be worked, but daily exercise should be given.

*In dogs* the treatment of the condition is very similar to that of horses, but the tar preparations must be used with caution, owing to their toxicity for dogs. Salicylic preparations 1:20 are very serviceable, as also are Chinisol 1:500, and Eusol (0.5% hypochlorous acid). Internally, a course of tonics should be prescribed, such as arsenic, or a mixture of Cod-liver oil, Liq. extract of Malt and Syr. ferri phos. Co. The acne lesions of follicular mange in dogs generally yield readily to autogenous vaccines.

In all species small impacted sebaceous glands may be relieved by puncture and squeezing, but the larger ones should be dissected out, otherwise they are likely to recur.



*In sheep* with acne, a local application of carbolic lotion, or sulphur dressings should be resorted to, and internally a small dose of a saline administered and followed by a course of tonics.

#### IMPETIGO.

Impetigo is an eruption of the skin consisting of a superficial pustule, often accompanied by a surrounding zone of hyperæmia. The lesions are usually painless, and often termed 'cold pustule' in contradistinction to acne, the lesions of which are often called "hot pustules." The lesions in impetigo are always due to a micrococcus, but the condition is generally met with in animals with vitality reduced from various causes. It may thus be met with in puppies at the time of teething, and also the subject of worms. In bitches it commonly occurs about the time of parturition and when rearing puppies. A lesion practically indistinguishable from impetigo is also met with in the so-called cutaneous form of distemper. In milch cattle impetigo is frequently met with affecting the skin of the udder immediately after calving, particularly in highly fed cows. This form often assumes a contagious character and has been mistaken for vaccinia.

Impetigo is also met with occasionally in horses and in swine, but more rarely than in dogs and cattle. By some authorities impetigo is regarded, somewhat questionably, as the pustular form of eczema (*E. impetiginoides*).

**Symptoms.** The lesion consists of a flat, very superficial pustule, which may be preceded by a tiny vesicle under the epidermis. The surface is yellow and soft. Generally the lesions are circular and discrete, and from a quarter of an inch to half an inch in diameter, but, if numerous, they may be confluent. They are usually free from irritation, and are often surrounded by a red zone. They rupture quickly, and form yellow crusts which soon fall off. Sometimes the hair over the part is matted, as the result of which irritation may arise. When the lesion occurs on the hairless parts, it frequently leaves on bursting a simple ragged edge of epithelium, and the previous existence of the pustule may be indicated by a spot which is slightly clearer than the surrounding area, and the margin of which appears as though etched out. Impetigo always runs a rapid course, and this fact together with the absence of irritation serves to distinguish it from eczema.

**Treatment.** Impetigo is amenable to very simple measures. Internally a course of tonics should be prescribed, while locally the scabs should be removed by fomentation with a mild antiseptic and astringent lotion, such as Chinisol (1-500), Eusol, Carbolic acid 1%, creolin 1%. Subsequently a mild dusting powder, as boracic and starch, may be applied.

*In cows* the coal tar preparations and eusol should be avoided, owing to the danger of tainting the milk. Chinisol Lotion or boracic acid are preferable.

#### DISCUSSION.

Mr. H. D. JONES remarked that his experience of acne in the horse was chiefly with one class—the carriage horse. Usually the trouble occurred at one period of the year, when the horses were first clipped. Presumably the skin was then tender and more liable to infection. A day or two after clipping pustules appear, frequently under seat of harness; and he believed that the acne was also to be attributed to the pressure of the rugs, two or three in some cases, which were put on the animals. He had known of horses that were covered all over with the pustules, and had temperatures of 104° and 105°; in some cases the trouble was so acute that the animal required prolonged treatment. In treatment he advocated the disuse of rugs and the avoidance of grooming. A little antiseptic ointment should be ap-

plied to the skin, and animal kept in warm stable and fed on suitable diet.

Mr. W. R. DAVIS said that the nomenclature of skin diseases was a source of trouble to him; he was unable readily to differentiate the cases. He would ask the President how he would class the boils on the udders of cows—as impetigo or acne? Sometimes these contained as much as a tablespoonful of pus. They were superficial, and did not affect the parenchyma of the gland. They required very little treatment, but were allowed to burst of themselves in many instances. They were sore, and often caused the cow to kick when milked. They were quite common.

Mr. THOMPSON had seen different forms of acne in the horse at different times of the year. The eruptions were often noticeable at the top of the neck if the animal's hair was taken off, as used to be customary, but were less frequently seen now, except in the case of hogged-maned horses. He had the impression that the trouble was due to irritation of the hair follicles by the collar riding on the hair. Occasionally there was an isolated acne pustule, which was easy to deal with. He had known instances in which such pustules, being broken by the collar and consequently discharging, had led to prosecution. He usually lanced them and introduced carbolic, which soon remedied the trouble. In cases where there was a continuous crop of such pustules, he had found it best to treat internally with arsenic, and a blister of biniodide of mercury, and invariably with success. Impetigo was common where clipped horses were out in a shower of rain, and it occurred especially where the breech straps crossed the hind quarters, due, possibly, to some irritant washed out of the leather. He generally used a cooling lotion, such as lead and zinc, or sulphur dressing.

Mr. McINTOSH shared with Mr. Davis the difficulty in differentiating, scientifically at all events, between certain skin diseases, as many of these present the most varied pathological characters. His experience of Acne was not a large one. He had now and again a case to deal with, and as a rule he started off by giving the animal a dose of physic followed by blood tonics. Many of these cases, however, were extremely troublesome and required considerable surgical attention, opening the pustules freely, pressing out the contents, and the subsequent use of disinfectants, or cauterisation if necessary. Total extirpation of the affected parts may be the only remedy.

Quite recently the speaker had a case of skin disease in a white skinned animal which he was unable to classify with any degree of certainty. He would endeavour to give them a description of the symptoms, and perhaps the Fellows would be able to relegate the disease to its proper division.

The animal—a harness mare—of the under-bred type got down in condition and was unthrifty looking. It was thrown off work, and beyond generous feeding nothing was done in the way of treatment until some ten days afterwards, when well-defined raised swellings of the skin appeared pretty well all over the body, resembling nettle rash. These swellings were quite hard and painless, and remained in this condition for weeks. Further than this, there appeared little constitutional disturbance, as the temperature and pulse remained normal, and the appetite, although fickle, was quite good. Treatment consisted of physic and blood medicines, and the application of oil and lard to the skin. It took, however, several weeks before these nodules showed any tendency to disappear—a few showed a slight weep from the surface. Eventually the whole cleared off in the form of scales, leaving distinct markings all over the body, which ultimately got covered over with a beautiful coat. One of the sequelæ was loss of sight in both eyes.

Prof. WOOLDRIDGE replied. He had rather expected reference to be made to the usefulness or otherwise of autogenous vaccines. This method of treatment, while likely in some instances to be extremely useful, was liable to a bad reputation from the fact that it was used for all and sundry cases. The principle of autogenous vaccination had met with greater success in skin diseases than in anything else due to the streptococcus, and particularly the staphylococcus; he thought the practice might be more frequently resorted to in skin diseases which resulted from pus-producing organisms. He had also anticipated some reference to follicular mange. He did not suggest that follicular mange was due to pus-producing organisms, but the pustular lesions of follicular mange were; and autogenous vaccination afforded relief.

He noticed that others, like himself, had found difficulty in making a differential diagnosis in some of these cases, and, so far as treatment was concerned this was not important. What was of importance was the prognosis and the possibility of contagion. It was, moreover, well to know whether the case would be of long or of short duration. Without being able to foretell absolutely, a more correct opinion would probably be given if a differential diagnosis could be made. It was not always easy to distinguish between contagious and non-contagious trouble. In the case of a disease produced by organisms, there was always the possibility of its being transferred, more readily in some cases than in others. In the majority of instances simple acne was not very readily transferred, and, as a rule, the infective matter had not only to be spread on the skin of the new animal, but to be planted under the epithelium. That was an important feature to remember, and was largely responsible for the instances of breaking out after clipping. He believed that in these instances the cause was a slight scratch, invisible at the time of clipping, which became infected with pus-producing organisms, as a result of which acne pustules were produced in two or three days, which, however, passed away a few days later without special treatment. The point had been referred to by Mr. Jones and Mr. McIntosh.

Mr. Davis had quoted cases that had occurred on the udders of cattle, where a lesion on bursting emitted as much as a tablespoonful of pus. The speaker did not think that such cases should be regarded as either acne or impetigo; simply superficial abscesses.

[Mr. Davis: These formations are small, and in the nature of boils; they come in groups; are not of traumatic origin; and are subcutaneous.]

Prof. Wooldridge admitted that the line of demarcation was narrow, and it was difficult to say where a boil ended and an abscess began: a boil is actually a small abscess, and a pustule is a miniature abscess. In view of the quantity of pus, he would rather regard the formations as abscesses than as acne or impetigo.

Mr. Thompson had referred to certain troublesome cases occurring at the top of the neck and at the sides.

The speaker had thought Mr. Thompson was about to refer to botryomycosis in that region; cases in which a series of small bursting points occurred, about the size of the top of a finger. These were very painful, and difficult to treat satisfactorily. He believed the only course was to make a diagnosis by microscopic examination of the pus. A red blister would sometimes produce improvement, but the trouble recurred. In these cases autogenous vaccination was of no use, and he could only advise destruction of the horse.

[Mr. Thompson had seen horses relieved and at work—with further trouble ensuing. To which Prof. Wooldridge replied that the cases were probably acne and botryomycosis.]

Responding to a further statement by Mr. Thompson, that the spots had occurred on the side and on the top

of the ribs, Prof. Wooldridge regarded these as acne produced one after another by infective material being carried along, precisely as a series of pimples on the forehead under the brim of one's hat; one would burst, leaving infective material on the hat, which might be rubbed in at some other place.

Mr. McIntosh's reference to the case of skin eruptions and subsequent blindness of the animal was of very great interest. He would not have regarded that trouble as primarily a skin disease, but a systemic disease in which skin lesions occurred—in all probability a form of pyæmia, the blood stream becoming infected, due to abscess, with organisms carried to the eye as well as to the skin. That was, he should say, the cause of the damage to the eyeball, which resulted in blindness. It was possible to get organisms widely distributed in the blood without proving fatal, and he would think the case quoted by Mr. McIntosh to be one of these.

[Mr. McIntosh asked whether Prof. Wooldridge would describe as simple acne cases of slight swellings under harness, etc., which arose after a wet day and disappeared in a day or two. Prof. Wooldridge said he would consider these as cases of localised erythema.]

Mr. MCINTOSH proposed a vote of thanks to the President, the meeting being the last of the session—a session of which Prof. Wooldridge might well feel proud. He (Mr. McIntosh) had seconded his nomination to the chair, and while it was not usual for the Society to elect a President for the second term, it was felt that under existing conditions the election of a new Fellow of the Society as President would have imposed a difficult task upon such Fellow. Prof. Wooldridge was already a tried man, and had reason to be gratified at the attentances he had secured—the times being considered—and the useful work done in matters of national and professional importance. He formally proposed a vote of thanks to the President.

Mr. SAMSON seconded the vote, and thoroughly endorsed the remarks of the previous speaker.

The vote was put to the meeting and carried with acclamation.

Prof. WOOLDRIDGE, in returning thanks for the vote, also thanked the members for their attendance at such a time of stress, when it was particularly difficult to find time. It was a great pleasure to him, because it afforded relaxation from other things, and because he believed it to be an advantage to meet, if only once in two months. He agreed with Mr. McIntosh that the Society had done good and useful work; in particular, the work relating to the feeding of horses of itself justified "carrying on" during the past session.

Mr. ALMOND then proposed a vote of thanks to the gentlemen who had provided morbid specimens for discussion at the meetings. The Society was much indebted to those who, in that way, had provided matter of both utility and interest.

Mr. DAVIS seconded the vote, which, on being put to the meeting, was carried with acclamation.

The PRESIDENT then announced that the next meeting would take place on the first Thursday in October.

HUGH A. MACCORMACK, Hon. Sec.

#### HIGH VALUES OF BREEDING STOCK.

The sales of breeding stock at Sudbourne, Sussex, last week included a Suffolk stallion at 2000 gs., and a mare at 900 gs. The ninety-eight horses sold brought a total of 31,600 gs.

For the Large Black pigs 455, 300, and 250 gs. was paid for sows, and 315 gs. for a boar. The 144 lots sold averaged £42 15s.—a higher average and a larger number of lots than any previous sale of pigs.

**COAL-TAR IN THE TREATMENT OF SORES.**

For the treatment of sores in horses and other large animals, Bringard uses coal-tar. To a kilogramme of this, when warm, he adds 200 grammes of calcium chloride and 100 grammes of boric acid. The sore, freed from foreign bodies and washed with tepid physiological solution, is covered with this adhesive mixture by means of a spatula.

**THE TREATMENT OF EQUINE LAMINITIS.**

Hinniger has published an article upon this subject in the *Schweizer Archiv. für Tierheilkunde* for 1917. He has obtained good results from the use of Fallianine; but latterly he has adopted another treatment with results that surpassed his expectations. This consists in bleeding, and then injecting a litre (= about 1½ pints) of a 2½ per cent. aqueous solution of sodium bicarbonate into the jugular. In less than twenty-four hours, this treatment is followed by a very great improvement.—(*La Clinica Veterinaria*).

**SUBSCRIPTIONS TO R.C.V.S.**

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

J. W. Baxter, London	£1	1	0
W. W. H. Edwards, Ludlow	1	1	0
Wm. Kennedy, D.S.O., Maj. E.A.V.C.			
Difference of exchange on draft of £21 from East Africa Veterinary Officers	2	12	6
J. Mosedale, Morristown, N.J., U.S.A.	1	1	0
A. O'Neill, Capt. A.V.C.	1	1	0
Edward Sewell, M.C., Capt. A.V.C.			
(1914-15-16-17-18)	5	5	0
W. R. B. Wakeham, Capt. A.A.V.C.	2	2	0
Previously acknowledged	920	19	5
	£935	2	11

**ARMY VETERINARY SERVICE**

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, July 25.

**REGULAR FORCES. ARMY VETERINARY CORPS.**

Temp. Lieut. to be temp. Capt.:—N. Fraser (June 6).

July 27.

Capt. H. E. Cross, Ind. Army Res. of Off., to be temp. Capt. (July 3, sen. June 15, 1917).

July 29.

Capt. W. H. Simpson relinquishes the actg. rank of Lt.-Col. on ceasing to be specially empld. (July 8).

Temp. Capt. M. P. Hatch relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of Capt. (July 30).

Late temp. Lieut. to be temp. Capt.:—J. J. McGrath (July 11).

Temp. Hon. Lt. G. C. R. Thorp relinquishes his commn. on acct. of ill-health, and retains the hon. rank of Lt. (July 30).

To be temp. Lt.:—W. Ledger (July 11).

Temp. Maj. T. C. Evans, M.C., Can. A.V.C., is seconded for duty with the War Office (June 18).

**SPECIAL RESERVE OF OFFICERS.**

Hon. Capt. to be Capt.:—G. Barnett (July 22).

**Personal.**

Lieut.-Colonel T. B. WOLSTENHOLME, R.A.M.C. (T.), of Urmston, Manchester, has recently been awarded the Croix de Guerre; he is son of Jno. B. Wolstenholme, F.R.C.V.S., of Manchester.

**OBITUARY.**

FRANK HENSON GIBBINGS, F.R.C.V.S., Black Boy Hotel, Nottingham. Graduated, Lond: Jan., 1878.

Mr. Gibbings died July 27th, aged 63 years.

**SPECIFIC PARAPLEGIA IN BOVINES.**

Dear Sir,—I was very much interested in Mr. William Scott's article on "Specific Paraplegia in Bovines—a new (?) disease," as a disease with similar symptoms affected a large number of cattle in the district in which I happened to be during the months of January and February, 1917.

About 50 cattle died in about six villages; no less than about 30 dying in one herd, including two yearling bulls.

B.E.F.

G. REES-MOGG, Major A.V.C.

**Chemists and Veterinary prescribing.**

At the Seventeenth Annual Meeting of the Chemists' Defence Association at the Holborn Restaurant, London, on July 11, the Chairman of Directors, Mr. P. F. Rowsell, presided. In the course of his address he referred at considerable length to discussions which had arisen respecting the new Veterinary Section established in January this year, and of which full particulars were published in the *Anti-Cutting Record*. Two hundred and fifty members of the Association had joined the new section, and already one member had reaped the advantage of it. This member had supplied a strong ointment to cure warts on a heifer, and unfortunately its use had resulted in the death of the animal and the subsequent payment of £7 compensation to the farmer. This amount had been refunded to the member by the C.D.A.

He gave another instance of a veterinary claim, showing the necessity for members to take advantage of the new section. It happened quite recently in a large city. An owner of a bull pup bought Easton's Syrup from a chemist and gave it in nine-drop doses to the dog, which very soon succumbed to strychnine poisoning. The angry owner accused the chemist of supplying wrong medicine, and talked of compensation and made various threats. As the member had supplied what was asked for without recommendation or comment, and as the syrup was found by analysis to be of correct composition, he was recommended by the C.D.A. to resist the claim.

He described an interview which he and the Secretary had had with a well attended meeting of the East Anglia Federation of Pharmaceutical Associations and a similar meeting of the Essex Association of Pharmacists which the Secretary had attended, at which the subject of veterinary risks was discussed at great length. These bodies considered that veterinary risks should be included

in the general subscription, even although that might have to be advanced a little. He had pleasure in informing them that the Directors had again considered the subject, and that they had unanimously come to the conclusion that something of the nature indicated would be attempted before the Association was very much older.

The probable risks could be gauged by a full year's experience with 250 Veterinary Section members. He recommended that, as veterinary risks up to £100 could be covered for 7s. 6d. a year under the new section, it was to the advantage of all specially concerned to join that in the meantime. He stated emphatically that the Directors intended to give the new section a fair trial.

Mr. Lloyd described a case in which he had been accused of being the unwitting cause of the death of a prize canary, and his customer talked big about £100 compensation. Acting on advice he received from the Association, he resisted the claim and heard no more of it.

Mr. Rowsell explained that the Association had always given free legal advice in regard to veterinary mishaps in their member's shops, but they did not pay compensation except to those who were members of the section.—*The Pharmaceutical Journal*.

#### Veterinary Societies - Addresses.

##### BORDER COUNTIES V.M.S.

*Pres:* Mr. H. Barrow, M.R.C.V.S., Ireby, Carlisle  
*Hon. Sec:* Mr. R. Craig Robinson, M.R.C.V.S., Carlisle  
*Meetings:* Second Friday of Feb., June, and October

##### GLASGOW V.M.S.

*Hon. Sec.* Mr. John S. Keane, 11 Falkland Mansions, Kelvinside

##### ROYAL VETERINARY COLLEGE V.M.A.

*Pres.* Capt. J. T. Edwards, B.Sc., M.R.C.V.S.  
*Treas:* E. S. Shave, Esq., F.R.C.V.S., M.R.C.S.  
*Sec:* Mr. B. Gorton, M.R.C.V.S. *Asst. Sec.* C. W. Heane.

##### ASSOCIATION OF VETERINARY OFFICERS OF HEALTH

*Pres:* Mr. T. Douglas, M.R.C.V.S., Kilmarnock  
*Hon. Sec. & Treas.* Mr. A. M. Trotter, M.R.C.V.S., Moore Street, Abattoir, Glasgow

##### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS

*Pres:* Major J. Abson, F.R.C.V.S., Sheffield  
*Hon. Sec:* Mr. Trevor Spencer, M.R.C.V.S., Kettering

##### MUNSTER VETERINARY INSPECTORS' ASSOCIATION

*Pres:* Mr. D. M. Barry, M.R.C.V.S., Mallow  
*Hon. Sec:* Mr. J. F. Mahony, M.R.C.V.S., Caroline St., C rk

##### NATIONAL VETERINARY BENEVOLENT & MUTUAL DEFENCE SOCIETY.

*Pres:* Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester  
*Hon. Sec. & Treas:* Mr. G. H. Locke, M.R.C.V.S., Grosvenor Street, Oxford-st., Manchester

##### VICTORIA VETERINARY BENEVOLENT FUND.

*Pres.* Mr. S. H. Slocock, F.R.C.V.S., Montague Rd, Hounslow  
*Hon. Secs.* Mr. P. J. Kelland, M.R.C.V.S.  
Mr. Fred Bullock, F.C.I.S.  
10 Red Lion Square, London, W.C. 1.

#### COLONIAL SOCIETIES.

##### VETERINARY ASSOCIATION OF NEW SOUTH WALES.

*Pres:* Mr. S. T. D. Symons, M.R.C.V.S., Chief Insp. of Stock  
*V. Pres:* Maj. A. P. Gribben, F.V.O., M.R.C.V.S.  
*Hon. Sec. & Treas:* Major Max. Henry, M.R.C.V.S., B.V.Sc. (SYD).  
56 Bridge Street, Sydney

##### BRITISH COLUMBIA V.M.A.

*Pres:* Dr. S. F. Tolmie, V.S., Victoria  
*Vice-Pres:* Dr. Geo. Howell, V.S., Vancouver  
*Sec. & Treas:* Dr. K. Chester, V.S., White Rock

##### ASSOCIATION MÉDICALE VÉTÉRINAIRE FRANÇAISE "LAVAL"

*Sec:* Mr. J. P. A. Houde, Montreal  
PROVINCE OF QUEBEC V.M.A.  
*Hon. Sec.* Mr. Gustave Boyer, Rigaud, P.Q.

##### VETERINARY ASSOCIATION OF ALBERTA

*Hon. Sec.* Dr. F. A. McCord, 215 Queen's Ave., Edmonton

##### ONTARIO V.A.

*Pres:* Mr. J. H. Tennent, V.S., London, Ontario  
*Sec. & Treas:* Mr. L. A. Wilson, Toronto, Ontario

##### TRANSVAAL V.M.A.

*Pres:* Mr. P. Conacher, M.R.C.V.S.  
*Hon. Sec:* Major G. W. Lee, M.R.C.V.S., G.V.S., P.O. Box 93, Johannesburg

##### CAPE OF GOOD HOPE V.M.S.

*Pres.* Mr. J. D. Borthwick, M.R.C.V.S., Cape Town  
*Hon. Sec. & Treas.* Mr. J. W. Crowhurst, F.R.C.V.S., Longmarket Street, Cape Town

##### CENTRAL CANADA V.A.

*Pres.* Mr. Geo. Hilton  
*Hon. Sec:* Mr. A. E. James, Ottawa

##### VET. ASSN. OF MANITOBA.

*Pres:* Dr. W. R. Taylor, Portage la Prairie  
*Hon. Sec. & Treas:* Mr. Wm. Hilton, Winnipeg

##### NATAL VETERINARY MEDICAL ASSOCIATION.

*Pres.* Mr. F. J. Carless, M.R.C.V.S., Mooi River  
*Hon. Sec. & Treas.*

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered. *
	(a)		(a)		(b)		(b)		(b)	(a)	
GR. BRITAIN.											
Week ended July 27	4	4			1	2	84	131		31	23
Corresponding week in											
1917 ...	3	4			1	1	39	48	1	32	21
1916 ...	7	7					25	46		75	55
1915 ...	10	12			2	2	18	34	1	70	286
Total for 30 weeks, 1918 ...	155	173			23	64	3241	6193	246	876	346
Corresponding period in											
1917 ...	311	356			16	28	1735	3400	391	1575	680
1916 ...	345	406	1	24	32	84	1590	3641	178	2970	8385
1915 ...	391	448			32	59	1520	11139	159	2687	12188

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, July 30, 1918  
Excluding outbreaks in army horses.  
NOTE.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection

**Royal College of Veterinary Surgeons.**

*President:* Mr. Frank W. Garnett, M.R.C.V.S., J.P.  
*Vice-Presidents:* Mr. J. McI. McCall, M.B., C.M., M.R.C.V.S.  
 J. McKinna, F.R.C.V.S.  
*Secretary and Registrar:* Mr. Fred Bullock,  
 10 Red Lion Square, London, W.C. 1.

**NATIONAL VETERINARY ASSOCIATION**

*President:* Dr. O. Charnock Bradley, Prin. R.V. Coll., Edin.  
*Sec:* Mr. J. W. Brittlebank, M.R.C.V.S. (on Service),  
 Town Hall, Manchester  
*Assist. Sec:* Mr. W. L. Harrison, F.R.C.V.S. (on Service),  
 11 Anchor Terrace, Southwark Bridge, S.E.  
*Treas:* Prof. G. H. Wooldridge, F.R.C.V.S. (Acting Hon. Sec.),  
 Ryl. Vet. Coll., Camden Town N.W.

**Northern Branch:**

*Pres.* Mr. W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* Mr. A. W. Noël Pillers, (F)  
 71 Smithdown Lane, Liverpool  
**LANCASHIRE V.M.A.**  
*Pres:* Mr. G. H. Locke, M.R.C.V.S.,  
 Grosvenor-street, Manchester  
*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
 Town Hall, Manchester  
*Hon. Treas:* Mr. E. H. Stent, M.R.C.V.S., Preston-st, Hulme  
*Meetings,* 1st Thursday in April, June, Sept., & Dec.

**LIVERPOOL UNIVERSITY V.M.S.**

*Pres:* Mr. J. P. Heyes, F.R.C.V.S., Wigan  
*Hon. Sec:* Mr. A. Walker, F.R.C.V.S., Mill Lane, West Derby  
*Pathological Sec:* Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings,* May, July, October, January.

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# THE VETERINARY RECORD

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## FEES AND CHARGES.

The increased cost of living and travelling, and the general rise in the remuneration for work of almost every description, have forced upon practitioners the necessity for a revision of fees. Most of these reasons, of course, have appeared comparatively recently; but they are certain to remain in action for a long time. Those whose memories cover two or three decades of veterinary practice can recollect other changes bearing upon remuneration, for the most part older in standing and slower in development, which have taken place in it. Broadly speaking, our fees and charges have not changed greatly during the last generation; but our work has undergone alterations which have affected them considerably in the direction of necessitating a revision.

Formerly many veterinary surgeons profited largely by the sale of medicines, especially stock medicines in quantity. There were men, mostly in the country, who were really much more medicine vendors than practitioners. For various reasons, this source of income has declined for many years; and there is no probability that it will ever again approach its old level. Something like this might also be said of shoeing forges, which, though still considered indispensable in some practices, are not nearly so important as in old days. On the other hand, there has been a great increase in such special work as inspections, and diagnostic and preventive inoculations. It may be said generally that veterinary work is now much more strictly professional, requiring the personal attention of the practitioner himself, than it used to be, and that the element of trade is every year becoming a less important attribute. Our professional fees have never been very high, and on the whole have not risen much, while our trade profits have diminished. The numerical increase in the former has not compensated for our loss in the latter.

This broad consideration should be kept in mind in connection with the revision of fees. Many other points of general application may arise, which should also be remembered. One is the longer journeys which we habitually undertake in these days of the motor; another, which will gain in importance in the next few years, is the varying economic value of the different branches of our work. The last point is one on which clients may have a good deal to say; and here it may be said definitely that we are not likely to effect much improvement in our remuneration, unless we are prepared to look at the question fairly from the client's point of view as well as from our own.

## "UNUSUAL."

*Case I.* Saturday, July 13, 1918. Cow straining, and some discharge from vagina. Due to calve on the 18th.

I was asked to see her on the 16th. I could pass two fingers into the os uteri—but no more. On the 18th one hind foot and fetlock was just in the vagina.

The next day, I was only just able to get my hand into the uterus and bring forward the other hind foot, which was forwardly placed, showing hock presentation. Delivery took place with help, and recovery followed. Of course, the calf was dead.

*Case II.* Sunday, July 14. Cow straining, and some discharge.

I saw her for the first time the next evening, very late. Torsion of the uterus suspected, but was left to "wait and see."

On the 17th she was cast and repeatedly turned over; but without avail. She was slaughtered the same evening, and an interesting post-mortem revealed torsion of the uterus. It may be interesting to state that in spite of the stricture it was just possible to pass the ends of two fingers through and feel the calf's hoofs.

*Case III.* Sunday afternoon, June 14. Cow with discharge in the morning.

Saw her at 5.30 p.m. Down, and unable to rise. Head under manger; excitement very marked. Examination per vagina revealed the os slightly open, and two or three fingers could reach the feet of the fetus. There was a distinct curve in the neck. She was not due to calve until the middle of September.

I was obliged to return home for the udder syringe, as the symptoms were those of drop. On getting back to the case, which was about nine miles from my house, I found the cow in a state of complete coma. I injected, or inflated, the udder, packed her up, tying the teats with tape. She recovered about 1.30 a.m. next morning, and during the day aborted, but made a complete recovery.

W. W.

## GENTIAN VIOLET IN JOINT INFECTIONS.

In the *Journal of the American Medical Association* for April 13th Dr. John W. Churchman, professor of surgery in Yale University, describes the treatment of infected joints by lavage and direct application of a 1 per mil. solution of gentian violet, which has proved most effective in his hands. The method is now being studied by the author in parasitic skin diseases.



## ABSTRACTS FROM FOREIGN JOURNALS.

CAUTERISATION OF THE BUCCAL MUCOUS  
MEMBRANE BY CHLORAL HYDRATE.

Fröhner records this case in the *Monatschrift für praktische Tierheilkunde*. A horse was attacked by colic and, by a veterinary prescription, chloral hydrate was administered in the concentration of one part to six parts of liquid (extract of aloes, ether, and alcohol). A croupous stomatitis was produced. Fröhner, examining the case, observed abundant salivation, painful swelling and formation of crusts in the skin in contiguity with the mouth, great tumefaction, yellowish colour and acute pain of the buccal mucous membrane (especially in the region of the bit), and diphtheritic layers of the length of the hand in the tongue, with ulcerations of the diameter of a cent. Treatment with aluminium acetate produced recovery in five days. Fortunately the horse had not swallowed the solution of chloral; if it had done so, a corrosive gastroenteritis would have been produced. Fröhner believes that some of the hæmorrhagico-diphtheritic inflammations of the whole digestive tube, the etiology of which remains obscure, are due to the improper administration of chloral hydrate. This drug, therefore, should always be well diluted or joined to a mucilaginous substance.—(*Revista Veterinaria de Espana*).

## INTRADERMIC TEST FOR THE BACILLUS PULLORUM.

In Bulletin No. 517 of the Bureau of Animal Industry of the United States Department of Agriculture, Archibald, Ward, Bernard, and Gallagher give an account of work they have carried out to find a diagnostic test for the presence of the *bacillus pullorum* in birds.

The *B. pullorum* is one of the occasional germs of white diarrhoea in chickens; amongst which it causes enormous losses. It becomes localised in the hens, which are the chief reservoirs of the disease, and it is one of the microbes most frequently found in eggs; the infection may thus be borne to many distant places.

The conclusions of the authors' work are as follows:—A dead culture of the *B. pullorum*, after having germinated for about a month, and without any treatment but the addition of carbolic acid, has given the most satisfactory results.

It appears that the inflammation or oedematous tumefaction following the inoculation of this product into the wattles, when observed at a definite interval of time, is an indication of the presence of the *B. pullorum* in the fowl submitted to the test. The authors' experience leads them to the conclusion that an interval of twenty-four hours gives the best results; but it would be well to test, in a large number of birds, whether a slightly longer interval might be preferable.

The results indicate that any perceptible enlargement of the wattle may be considered significant. A second intradermic test, made after an

interval of four days, gives results which vary little from those of the first test. Other tests, practised at intervals of two months, give less exact results. There is, therefore, no advantage in repeating the tests.

Of birds artificially infected and tested in the laboratory, 90 p.c. gave positive reactions. In 6 p.c. the tests failed; not giving any reaction, although lesions were observed. In 3 p.c. there were neither reactions nor lesions.

In one experiment with 231 birds, in which the agglutination and the intradermic tests were employed simultaneously, the intradermic test in one instance failed after an interval of thirty-eight hours to reveal a case given as positive by the other reaction. In another lot of 50 birds, in which the same comparative test was made, the intradermic test, examined after an interval of thirty-six hours, failed to reveal a case which had reacted positively to the agglutination test.

Of 47 birds which were examined by the agglutination test, 40 gave positive reactions, and the other seven doubtful ones, resulting in a complete agreement between the agglutination and intradermic tests and with the post-mortem findings in 70 p.c. of the cases.

Only in 72 p.c. of the birds naturally infected and which had reacted to one or both tests were the post-mortem findings positive.

The authors' conclusion is that the intradermic test has succeeded sufficiently well to guarantee it a more extensive trial in practice in comparison with the agglutination test.

## "REMOUNTS," AND HORSE-TRANSPORT AT SEA

In purchasing large numbers of horses in order to keep up the continual supplies of "Remounts," necessitated by the wastage of warfare, the officer concerned will naturally find it impossible to put the time and minutiae in the examination of each individual animal, that would be possible were he examining a few race-horses (say) costing a small fortune a-piece. Yet with the method to be described, it will be found that with ordinary care, no unsound or radically unsuitable animal need be found among his final selection.

It is a good plan to have a number of the horses trotted round in a circle, the examiner standing meanwhile in the centre. It is then comparatively easy to divide the candidates for campaigning hardships into two classes: (a) The obviously unfit, either in size, action, conformation, or vice, and (b) Those animals which are more or less of the desired type. These latter are then examined for age and soundness in the ordinary way, and if satisfactory, and if they meet with the approval of the purchasing officer, they are branded on the hoof as a sign that they are purchased, and in order to prevent the possibility of substitution.

Having thus cursorily glanced at the duties and methods of the purchasing veterinarian, let us turn to the still heavier responsibilities of the man in veterinary charge of a horse-transport. Having been detailed to a boat, a wise precaution is to make as thorough an examination as may be practicable of the scene of one's future labours, with a view of having any alterations in structure or arrangements made which may be deemed advisable; for little things which count for inconven-



ience or worse at sea, can often be rectified in port at a trifling expenditure of time or money, though, if neglected, they might make a great difference to the success of the voyage.

An examination of the temporary surgery, which has probably been rigged up somewhere "aft," will reveal a woeful deficiency in one's favourite specifics, and this should by no means be overlooked, for few things are more worrying than to have a case out at sea, see it go from bad to worse, and be all the time reflecting—"If only I had so-and-so."

And now comes a still more important matter: one may with more or less complacency "throw physic to the dogs," according to idiosyncrasy, but no one will deny the all-importance of diet.

It would be beyond the scope of this article to enter into a dissertation as to the various food values of the different food-stuffs, as providing the fodder will not be within the veterinarian's province; but it will naturally be his first care to assure himself as thoroughly as may be that all fodder on board is sound, clean and dry, before sailing.

It is obviously futile to hurl anathema at a careless contractor's head, when one's charges are in mid-ocean. In this connection it may be noteworthy that sometimes hay may become damp before, or while being shipped, and is thus liable to become mouldy, and when this is the case one may expect digestive troubles. Here, again, "prevention is better than cure"; and a little forethought and trouble in port may save many an anxious hour at sea.

It is the general experience of shippers, I think, that horses do better at sea on a light diet for the first few days, until they "get their sea-legs." The diet should then be increased gradually, the amount *per diem* naturally varying with the size of the animal, the fact being borne in mind that when more food is introduced into the stomach than can be readily digested the action of the gastric fluids is retarded, and chemical changes, which lead to fermentation may possibly result. On the other hand insufficiency of food (which may easily happen from carelessness in giving one horse too much and his neighbour too little) will naturally tend to produce debility in individuals and a corresponding predisposition to contract any epidemic which may be latent, and which would be obviously difficult to deal with at sea, if only on account of the difficulty of isolation.

A word in conclusion as to the staff. The practitioner may possibly have an Army Veterinary Corps man or two on board to assist, if so, he will find them—if his experience be that of the writer—"a very present help in time of trouble." If not, he must, of course, do his best with the material to hand, which may vary from the conscientious, reliable hard worker, to the shirking scoundrel "out" to do as little as possible, and who probably has a tendency to smoke in prohibited hours, anywhere he can hide in, including the fodder holds, with a complete indifference to the safety of the ship, even though his own worthless carcass be part of the cargo.

In this connection, "example is better than precept," and any slackness tends to extend downwards, but in extreme cases, a few hours spent hand-cuffed to the ship's rail have a chastening effect, and cause the *mauvais sujet* to see the error of his ways. But such forcible measures should only be resorted to in extreme cases, and then only with the consent of the captain of the ship; for the willingness and thoroughness of work, so necessary for the success of the voyage, can rarely be obtained by coercion.

CHARLES C. ABRAM, M.R.C.V.S.

### Acidosis and Surgical Shock.

Last week we reprinted from the current number of *The Lancet* a note on observations on the causes of surgical shock. In the issue of June 1 there appeared a report of an investigation by Col. Sir ALMROTH E. WRIGHT, C.B., and Capt. LEONARD COLEBROOK, R.A.M.C., "On the acidosis of shock and suspended circulation." Apart from the direct application of the facts and principles involved, the subject, which has presented problems to the human practitioner for more than twenty years, has, to the man who does his own thinking, an attraction of its own, and the linking up with acidosis—a condition that was un-named and unknown a comparatively few years ago, lends additional interest. Acidosis was early recognised in the final stage of diabetes, and as a sequel to some conditions of malnutrition in young children: there it appeared to have a bio-chemical origin. Here it appears in different conditions.

The following excerpts are from the article of June 1st:—

"The suggestion that acid intoxication is an element in surgical shock we owe to Crile. For the establishment of the fact we are indebted to Cannon. His observations have shown that we have in the wounded man affected by shock a man suffering from a severe, sometimes an extreme acidosis. This discovery has therapeutic value; and it is of utility also as directing attention to a fundamentally important element in our vital machinery which has up to now been only imperfectly explored, and which medicine has, one may say, completely left out of account. I refer to the large output of acid waste products from the body, and the provisions by which, despite that, the alkalinity of the blood is maintained.

In connexion with the wounded man—To which of all the pathological agents brought to bear on him is his acidosis due? Whence have come the waste products which have produced that acidosis? What factors have influenced their convection into the blood stream? And how soon after it reaches the circulation is the acid disposed of? These problems considered, the question will come up as to whether the type of acidosis encountered in the wounded is not encountered also in other morbid conditions.

The outstanding feature in the symptomatology of shock being the fall of arterial tension—and interference with the circulation at the periphery—we may inquire first into the effect of arresting and reopening that circulation. We anaesthetised rabbits with ether, clamped one or the several main arteries, and removed the clamps after varying intervals—taking from time to time samples of blood for the measurement of the alkality. (Table).

In these experiments, when an artery is clamped and afterwards unclamped a very appreciable quantity of a non-expirable acid is conveyed into the blood stream. The same effect will, of course, be obtained with a ligature, tourniquet, or Esmarch bandage. It will be obtained, also, whenever the arterial pressure sinks away and afterwards recovers. For when we have collapse of the circulation, the blood stream is cut off from the periphery and metabolic exchanges are arrested; and when the blood pressure is restored capillary blood vessels are reopened and the metabolic exchanges fallen in arrears are resumed.

Our next series of experiments has reference to the effect of cold immersion. (Table).

There is a broad similarity between these results and those set out in the previous Table. There are, however, differences. In the first place, the acidæmia is here

much greater. *Secondly*—no doubt in correlation with the fact that the circulation in the limbs is not immediately arrested by the cold immersion—the acidæmia is already manifest when the animal is removed from the ice-bath. And, *thirdly*, when we here test the muscle (we do this by placing a piece of washed extirpated muscle on red and blue litmus paper) we find it definitely acid instead of alkaline as normal muscle, or amphoteric as muscle extirpated after simple occlusion of the artery.

*Resuscitation acidosis.* We see that bringing back the circulation increases the acidæmia, and that the blood returning from the muscles is more acidised than the blood taken from the right heart or vena portæ. And concurrent examination of the muscle reveals that, as the acidosis of the blood increases, that of the muscle decreases until its normal alkaline reaction is restored. A further point of practical import, brought out in connexion with rabbits 1 and 5, is that the animals, when they have to all appearance got over the effects of their cold immersion, may still be definitely acidæmic. It is shown that this acidæmia disappears after a few hours. This reversion to the normal may be safely assumed to be due to the acid being burned off in the system.

*Acidosis from hæmorrhage.* This question has already been settled in the affirmative by the experiments of Milroy, and we can see in two ways hæmorrhage must favour the development of acidæmia. It carries off sodium and potassium carbonates—the alkali available for the neutralisation of acid. And it depresses the arterial tension, and so interrupts the circulation at the periphery. That increases acid production in the muscles.

*Acidosis from violent muscular contractions.* We may now pass on to study the effect of increasing the metabolism of the muscles to the point at which the oxygen supply becomes inadequate. We can do this by powerful faradisation.

We have here, again, an acidæmia (Table). We see from the conditions of the experiment that it is a myogenous acidæmia; and we have confirmation of this in the circumstance that muscle tested immediately after tetanisation is, like muscle immediately after cold immersion, definitely acid. And there is also another point of resemblance between the acidæmia of tetanisation and that of arterial occlusion and cold. When it has not been carried too far the acidæmia passes off after a few hours.

*Acidosis of the wounded man.* As to the nature and genesis of the acid conveyed into the blood we may, as it seems to us, in the light of Fletcher's work on the metabolism of muscle in the presence of oxygen and in its absence, with probability conclude that both in our experiments and in shock as seen in the wounded man we are dealing with an acidæmia produced by lactic acid evolved in muscles which are by reason of arrest or collapse of the circulation cut off from their oxygen supply. When we think the matter over we see that this would be an acidæmia similar in character and derivation to that which develops in the dead body. The importance of recognising the fundamental identity of the acidæmia of shock and that which develops in the dead animal will presently emerge.

*Indications of Chilblains and Trench foot being associated with Acidosis.* It will be clear that the conditions which we dealt with in our ice-bath experiments and the conditions which produce chilblains and trench foot are essentially the same. From this we may safely argue that when acidosis is examined for in these conditions it will be found.

*Acidosis and Anæsthesia.* The pathology of trench foot and that of general anæsthesia would seem to lie poles apart. But in reality they would seem to have in common the factor of a shutting off of the circulation and a resultant cutting down of oxygen supply from the

muscles. This collapse of the circulation will, of course, be specially liable to supervene in severe and prolonged operations, in particular when undertaken in cold operating theatres. In animals—inasmuch as with them struggling, asphyxia, and terror, are inevitable accompaniments of every administration of anæsthetics—we are already as soon as the animal is under the influence of the anæsthetic confronted by a fully developed acidosis, and this will, if the animal remains in good condition during the anæsthesia, subsequently diminish. Cannon has emphasised the important practical points—the risk of superinducing upon the top of a 'wound-shock acidosis' an 'anæsthesia acidosis'; and the special risk of superinducing asphyxia when administering an anæsthetic to an already acidosed patient."

*Derivation of the Acidosis of Gas Gangrene.* Two years ago one of us pointed out that gas gangrene is characterised by the development of an extreme acidosis; and that gas-gangrene patients who are in a state of collapse and quite inoperable can be resuscitated and brought into a condition to stand operation by the intravenous administration of bicarbonate of soda. The utility of this procedure appears now to be established, and the treatment is widely resorted to. There remains, however, the problem of the source of acidæmia. In connexion with this it was at the time suggested that the acid was elaborated by the bacillus of Welch.

Now, in the light of the facts elicited by Cannon and ourselves, it has emerged that we must, in addition to acid elaborated by the microbe, take into our reckoning acid elaborated by muscle. That acid, converting as it would the alkaline muscle lymph into non-alkaline medium—i.e., a medium congenial to the bacillus of Welch—would provide for the infection a favourable point of departure. In connexion with this one of us has demonstrated that the fulminating gas-gangrene infection which is obtained in the dead animal is due to acid conveyed into the blood after death; and, further, that a quite similar rapid pullulation of the microbe takes place in blood drawn off from the dead animal after the post-mortem acidæmia has developed. The results set out (Table) are those of typical experiments.

There is another way in which acid produced in muscle may intervene in gas gangrene—not at the outset of the infection, but at the height of the toxæmia. In that toxæmia we have invariably a collapse of the circulation comparable to that obtained in cold immersion; and to this might not unreasonably be ascribed, at any rate, the rapid progress of the acidæmia.

*Resuscitation procedures in Shock.* The ideas which we have been developing have clearly a direct bearing on the policy to be adopted in the treatment of cases of shock—the warming up of the patient, and the intravenous injection of alkali recommended by Cannon. But there is an important distinction to be established. As a prophylactic measure the giving of hot drinks and the application of warmth is assuredly the ideal procedure. For by maintaining the circulation the acidosis will be prevented. No such enthusiastic view can be taken of heat applied as a remedial procedure in fully developed shock. Inevitably it will convey into the blood stream additional acid, increasing the acidæmia. Our experiments upon rabbits subjected to cold immersion have very vividly impressed upon us that too rapid resuscitation by warmth—i.e., a too precipitate washing of muscle acid into the blood—may be perilous to life. We venture to suggest that this possibility should, in connexion with resuscitation procedures—and not only in those applied to the wounded—be constantly kept in view. And it would seem to us theoretically desirable, for the avoidance of resuscitation acidæmias, wherever possible, to commence procedures by a bicarbonate of soda injection.

## THE U.S.A. ARMY VETERINARY SERVICE.

By the Act of Congress approved June 3, 1916, the Veterinary Corps was placed in the Medical Department of the United States Army. Up to the time of the present war this service was not organised and no enlisted personnel was authorised. Under Act of Congress approved May 18, 1917, a special order was issued by the Secretary for War authorising the organisation, for the period of the existing emergency, of a Veterinary Corps, National Army, which should consist of 1 commissioned officer and 16 enlisted men for each 400 animals in service. The proportion of animals to men in war is about 1 to 4. One good horse or mule is capable of doing practically as much work as four men. Animals are afflicted with many diseases that are common to man and some of them communicable to man. Statistics show that about 10 % of the animals in the army are constantly incapacitated. In former times this percentage has been much higher and the unfit animals were carried along with those that were working. This plan necessarily interfered with the mobility of an army. Much better results have been obtained by sending unfit animals back of the lines for treatment, where supplies and trained assistance are provided. Under the old plan it was possible to cure only about 60 % of those incapacitated, while under the more modern methods practically 90 % are cured and become more useful than green horses that are purchased for the army service.

The Veterinary Service in the United States Army is comparatively a new organisation. In our civil war most of this work was done by the chief farrier or the chief blacksmith. In March, 1863, Congress passed an Act abolishing these positions and provided one veterinary surgeon for each regiment of cavalry. President Lincoln evidently appreciated the value of veterinary service to the army. He offered to some of the best veterinarians in the civil war the subaltern rank of lieutenant. They believed that they should have the rank of captain and unfortunately declined the rank offered. It is believed now that they should have accepted the rank, demonstrated their ability and made their service a necessity.

In later years veterinary schools were organised and decided progress has been made in preventing and treating the diseases of animals. At the present time there are a number of state schools all of which require a preliminary education of at least four years high school and a professional course of four years. These schools are now turning out men who are well trained in the diseases of animals, animal hygiene, and meat and milk inspection. With necessary organisation and direction it should be possible to utilise these men in building up a veterinary service for the army that will be a credit to the Government. It is unfortunate that the work of organising this service could not have been completed in times of peace. Under present conditions it has required a great deal of extra effort on the part of the War Department and the Surgeon General to provide for the service.

Up to the time of the present war the veterinary service was unorganised. There was no system of keeping records or directing the service. Fortunately, there were among the few men in the regular veterinary service of the army some who had served long and faithfully in the army and had kept informed of the progress made in veterinary medicine in general, and especially in that part which pertained to Army Veterinary Service. The Surgeon General ordered three of these men together with a few veterinarians from civil life to come to Washington to assist in organising the veterinary service. The following veterinarians have been assisting the Surgeon General in this work for the past three months: Major Gerald E. Griffin, Capt. Ray Stancliff,

Lieut. A. L. Mason, David S. White, dean of the Veterinary School, Ohio State University, L. A. Klein, dean of the Veterinary School, University of Pennsylvania, Charles E. Cotton, member of the Minnesota State Livestock Sanitary Board, and President of the American Veterinary Medical Association, and C. J. Marshall, State Veterinarian of Pennsylvania.

The plan of organisation outlined for the Veterinary Corps is practically the same as that of the Medical Corps. Provisions are made for advance and base veterinary hospitals, veterinary service in connection with the purchase and transportation of animals at posts, in camps, on the march, embarkation depots and on transports. The veterinary officer in charge of the administration of the Veterinary Corps is under the Surgeon General. Other veterinary officers in charge of corps, divisions, brigades, posts, detachments, regiments, etc., have the same relative titles as those of the Medical Corps and stand in the same relative position to the Surgeon General.

The work of organising the veterinary service is practically completed. It is hoped that good results will be obtained. The service will be useful to the army and animal husbandry in general, and will encourage schools to extend or maintain the high standards which some, but not all, have already adopted.—From *Journal of the American Veterinary Medical Association*.

## Dipping and prosecution for Scab.

In the Oban Justice of Peace Court, Charles Cargill, farmer, Pitarrow, Fordoun, Kincardineshire, was charged with having on or about 11th April last sent or conveyed, or caused to be sent or carried, by the Caledonian Railway Company, seven Blackface ewe hogs and six Blackface wedder hogs which were affected with or suspected of sheep scab, contrary to the Diseases of Animals Act, 1894, and the Sheep Scab Order, 1905. Mr. James Coats, J.P., Fiscal, appeared for the prosecution, and the respondent, Mr. Cargill, was represented by Mr. R. A. MacVicar, solicitor, Oban. A plea of not guilty was tendered.

Mr. MacVicar pointed out that his correspondent (Mr. Cargill's solicitor at Laurencekirk) took up the position that the question of whether the sheep mentioned were affected with scab or not was irrelevant in view of the fact that the respondent was authorised by the local authority to have the sheep removed, and that in so doing he had the authority of the Board of Agriculture's orders, and was thereby protected.

Mr. Coats replied that what he had to prove was the question of fact as to whether the sheep came from Laurencekirk and were found to be affected with scab on their arrival at Taynuilt. The fact that permission for removal was granted could not relieve the respondent of responsibility.

The Chairman, ex-provoost F. W. Cooper, held that the Court had only to deal with the complaint before them. They did not know anything about the local authority.

Constable Roderick Mackenzie said he saw Mr. MacDougall's sheep being untrucked at Taynuilt station on the evening of 12th April. There were 241 sheep in the lot, and he suspected from their movements that some of them were affected with scab. He thereupon examined one of the animals, and it was pretty bad. He examined five that evening, and found all of them affected. He sent some of the wool to Superintendent Mackenzie, Oban. On the following Monday (15th April) witness went to Drissaig farm and examined all the sheep which came back from the wintering at Laurencekirk. He found 13 had scab. All the animals affected looked as if they had had the disease for a considerable time previous to 15th April.

Peter MacNicol, shepherd at Drissaig, corroborated' and John MacDougall, veterinary surgeon, Oban, gave evidence as to his examination of wool sent him, and subsequently of the sheep at Drissaig, when he found 13 hogs suffering from sheep scab. The sheep in question could not have become affected with scab between 12th April, the date of their return from Laurencekirk, and Monday, 15th April, when he examined them.

In reply to Mr. MacVicar, witness said it was quite possible for the sheep to be affected with scab on 15th April, although they might have been double dipped at Laurencekirk on 20th March and 2nd April.

Charles Cargill, the respondent, stated in examination by Mr. MacVicar, that Mr. MacDougall's sheep arrived at his place for the wintering in October, 1917, and they were dipped about 10th November. Witness informed the local authority of his intention, and they sent an inspector to see the dipping carried out. At that time witness did not notice anything wrong with the sheep. About the end of December the Chief Constable of Kincardine received a notice from the Board of Agriculture intimating that Mr. MacDougall's sheep should be double dipped, as they had been in contact with sheep affected with scab. That dipping was carried out in December and January, Mr. MacDougall, the owner of the sheep, attending the second dipping. In the month of March witness suspected the sheep were again showing signs of scab, and he at once reported the matter to the local authority as well as to Mr. MacDougall. The sheep were dipped on the 20th March. A very strong dip was used. Seven of the animals seemed to be affected. These were hand-washed. On 2nd April the sheep were again examined by the local constable, the sheep formerly found infected being again hand-washed. The sheep at that time all appeared to be clean, and witness applied to the local authority for permission to have them removed. The bargain was that the sheep were to be returned on 1st April. As the representative of the local authority considered that the sheep were clean, witness received the necessary authority to return the sheep to Argyllshire.

Police Constable Wm. Napier, Auchanblae, Kincardineshire, the local inspector under the Diseases of Animals Act, gave evidence as to the various dippings carried out by the respondent.

Charles George, Chief Constable, Kincardineshire, who was the Chief Inspector for the local authority under the Diseases of Animals Act, said the first he heard of the sheep was about 20th December, when he was asked by the Board of Agriculture to see that the sheep in question were double dipped, as scab had broken out at Drissaig farm. That was done, the dipping took place on 22nd December and 3rd January. He reported the dipping to the Board of Agriculture, and asked the local inspector to keep an eye on the sheep. About 19th or 20th March the local inspector again reported that there were symptoms, and the sheep were again double dipped. On the 9th April witness received a telephone message asking if Mr. Cargill could send the sheep home to Drissaig. He replied in the affirmative, as the local inspector had reported that the sheep were free of the disease. He granted the necessary order. Witness was greatly surprised when he heard from Supt. Mackenzie, Oban, that scab had been discovered on the sheep when they returned from Kincardine.

In reply to Mr. Coats, witness said, in view of what had happened, it would have been wise to get a veterinary surgeon to examine the sheep, but he followed out the course recommended by the Board of Agriculture's inspector in the month of December.

The Chairman said that this was the most curious case of sheep scab prosecution that had ever come before him. It amounted to this: that all parties had observed the regulations, but the regulations were not sufficient

to carry into effect the purpose intended. As the object of these prosecutions was to stamp out sheep scab, he thought the attention of the Board of Agriculture should be drawn to this particular case, so that the Board might see that the regulations were sufficient for the purpose in view.

Mr. Coats pointed out that the offence consisted in removing sheep which were affected with scab. It did not matter how many double dippings the sheep got; what the Court had to deal with was that scab was discovered immediately on the arrival of the sheep at Taynult. It was the duty of Mr. Cargill, the respondent, to see that the sheep were clear of scab when they left his farm; but the curious thing was that from first to last no attempt had been made to call in a veterinary surgeon. The practice in Argyllshire in such a case was that sheep could not be removed without a certificate from a veterinary surgeon.

Mr. MacVicar said that in this case the respondent had followed the correct procedure. Mr. Coats seemed to imply that the onus was on Mr. Cargill to call in a veterinary surgeon to see whether there was scab or not. The respondent had conformed with the regulations of the Board of Agriculture, and he had therefore done everything he was asked to do.

The Chairman said he could not see how that statement could clear Mr. Cargill of the charge of removing sheep which were affected with, or suspected of, sheep scab.

The Court found the charge proved, and a fine of £2 2s. was imposed.

The Chairman, in announcing the decision, said the fine had been limited in this case for the reason that it appeared that Mr. Cargill had made quite a reasonable effort to comply with the regulations, as these were interpreted in Kincardine, but that interpretation did not seem to the Court to be sufficient to carry out the purpose in view, which was to prevent sheep affected with scab being carried by rail.

Mr. MacVicar asked the Court to state a case.

## ARMY VETERINARY SERVICE

War Office, July 26.

The King has been pleased to approve of the following Awards to the following Officers and Warrant Officers in recognition of their gallantry and devotion to duty in the Field:—

### THE MILITARY CROSS.

\* \* \* \*

Temp. Capt. J. S. YOUNG, A.V.C.—He took over a large number of horses, stampeded by shell fire and wounded; with great coolness and resource he restored order, and although the enemy were rapidly advancing he placed wounded men on the horses, and so assisted them to a place of safety. He also completed the arms and equipment of fighting troops from the packs of stray horses.

War Office, Aug. 6.

The names of the following have been brought to the notice of the Secretary of State for War by Lieut.-Gen. Sir J. L. van Deventer, K.C.B., Commanding-in-Chief, British Forces East Africa, for distinguished services during the operations from May 30 to December, 1917:—

### ARMY VETERINARY CORPS.

Capt. W. W. Henderson.

### SOUTH AFRICAN V. CORPS.

Capt. M. Cunningham, Capt. F. J. Dunning, Capt. A. M. Howie.

EAST AFRICAN V.C.—Capt. M. H. Reid.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Aug. 1.

## REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Capt. W. C. Quinell relinquishes the actg. rank of Maj. on ceasing to hold the appt. of Dep. Asst. Dir. of Vety. Servs. (July 16).

Capt. J. Harrison to be actg. Major while holding the appt. of Dept. Asst. Dir. of Vety. Servs. (July 16).

Temp. Lt. to be temp. Capt.:—R. B. Crichton (July 18).

To be temp. Lieut.:—E. K. Smith (July 15).

Temp. Qrmr. and Hon. Capt. T. F. Flood relinquishes his commn. and is granted the hon. rank of Capt. (Aug. 1).

Aug. 2.

Maj. W. C. Lowe, F.R.C.V.S., relinquishes the actg. rank of Lt.-Col. on ceasing to be specially empld. (May 5).

Maj. W. C. Lowe, F.R.C.V.S., to be actg. Lt.-Col. whilst empld. as Asst. Dir. of Vety. Servs. (June 18).

To be temp. Lt.:—R. G. Linton (July 15).

Aug. 3.

Temp. Lt. to be temp. Capt.:—C. F. Johnston (June 11).

Aug. 6.

Capt. to be Maj.:—P. V. Beatty (Nov. 2, 1916, sen. July 10, 1915, and prec. next below Maj. E. S. Gillett, C.I.E.). (substituted for notification in *Gazette* July 24).

Maj. A. E. Clarke, Res. of Off., to be actg. Lt.-Col. while holding the appt. of Asst. Dir. of Vety. Servs. (June 16).

To be temp. Lts.:—C. W. Elam (July 15); R. C. Scott (July 17).

Aug. 7.

Temp. Qrmr. and Hon. Lieut. to be Hon. Capt.:—H. R. Rose (June 1).

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

R. H. Bird, Greeley, Colorado	£1	1	0
F. T. Harvey, St. Columb, Cornwall	1	1	0
W. A. Macgregor, Capt. A.V.C. (T.F.)	1	1	0
A. V. Nicholas, Capt. A.V.C.	1	1	0
J. Richardson, Capt. A.V.C.	1	1	1

Previously acknowledged 935 2 11

£940 7 11

## OBITUARY.

LAWTON S. SEDGWICK, M.D., M.R.C.V.S., Rangoon.  
Graduated, Glas: May, 1904.

Mr. Sedgwick died at Bwlcheroesfaen, Iaygarreg, R.D., Montgomery, on 25th July, aged 42 years.

H. THACKERAY, M.R.C.V.S., Eastgate, Stafford.  
Lond: July, 1900.

The death of Mr. Harry Thackeray, partner in the firm of Carless and Thackeray, veterinary surgeons, of Stafford, took place at his residence, Wolverhampton Road, on Sunday, July 28. The deceased gentleman was the son of a cotton-spinner at Stalybridge, his father dying when Mr. Thackeray was a boy. He came to Stafford and was articled to Messrs. Ginders and Turnor, estate agents, but later took to the study of

veterinary practice, and passed his examinations with high honours. He started in practice at Eccleshall, but afterwards joined in partnership with the late Mr. Wm. Carless, on whose death Mr. Reginald Carless joined the firm. The deceased gentleman, who was 51 years of age, had been in poor health for some time. As a young man he was a member of the Stafford Athletic Club. His wife died about three years ago. There are two children. The funeral, preceded by a Mass at St. Austin's Roman Catholic Church, took place at the Cemetery on Wednesday.

## DISSATISFIED.

To the Editor of "*The Veterinary Record*."

Dear Sir,—In your editorial article dated July 27th, you draw attention to certain privileges granted to the profession. You remark that, "much of this is due to the vigilance and ability with which the chief representatives of the Council have furthered our just claims." May I be permitted to trespass on your valuable space to suggest that perhaps there are many of the profession who are of opinion that the work of the Council is not what it might be?

The advantages which your article mentions, namely, concessions as regards petrol, rations, etc., are certainly of value—but only to those members who are carrying on practices at home. We hear of their increased work and the extra demand made upon them, but surely they are getting paid for it, and veterinary surgeons at home are experiencing a time of prosperity.

Now as I believe the majority of the profession, and certainly all of what I term the younger members, are serving with the A.V.C., may I ask, What have the Council done for them? You say that we have been treated "no better or no worse than it (War Office) is accustomed to treat other professional men." I think that is hardly correct. A doctor joining the R.A.M.C. can receive consolidated pay at 24/- per day—an increase of about 5/6 per day of a V.S. Junior officers of most branches of the Service have, since war started, been granted two increases of pay. Under conscription I see no reason why a professional man should receive higher pay than that of a combatant officer, but it is hard on those who gave their professional services at the commencement of the war, having based their calculations of their being able to keep their families, premises, etc., on their pay at the then value of the sovereign. Now, though the value of money has decreased yet no attempt has been made to compensate these men, as in other branches of the Service. A 2nd Lieut. now receives 10/6 per day instead of about 5/11 at the commencement of the war. The A.V.C. officer receives the same as when the war started.

Furthermore, have the Council taken any interest in the condition of affairs of officers of the A.V.C.—whether satisfaction is given as to methods adopted in promotion, honours, etc.? I believe I am expressing the dissatisfaction that is among many junior members of the profession.

I regret having to use a *nom de plume*.—Yours faithfully,

August 8th.

"ONE OF MANY."

## A way with Fraudulent Remedies in U.S.A.

Seizures of sixty-two cases of a so-called hog-cholera remedy in Iowa and North Carolina upon order of the Federal Courts mark a determined effort on the part of the United States Department of Agriculture to stop interstate traffic in so-called hog-cholera remedies which do not cure, prevent nor control this disease which has such an important bearing on the Nation's pork supply. The seized goods are now in custody of United States Marshals pending action under the Food and Drugs Act. The Government charges that this remedy will not prevent or cure hog-cholera, as claimed on the labels of the seized products.

The Bureau of Animal Industry, through its veterinarians and experts in animal diseases, is cooperating actively with the Bureau of Chemistry in this campaign to control interstate traffic in fraudulent stock remedies.

#### Notes on the Isle of Wight Bee Disease.

Bee disease does not appear in the professional curriculum of the veterinary surgeon, and therefore the following note—one of several which have appeared in *The Pharmaceutical Journal*—is unlikely to appeal directly to more than a very few of our readers. One question that suggests itself is, Who should attend to it? It scarcely seems to belong to the rôle of the medical man; or to the prescribing chemist. And it may be remembered that one of the early achievements of Pasteur was a successful investigation of silkworm disease, which was the means of preserving a great national industry. There is not so much to be said for the conservation of the honey crop: but we are reminded by several obtrusive and unmistakable conditions of life that we are living on islands; and it is not a long jump to the idea that if we want to go on living—in reasonable comfort—we must conserve all sources of food, both now and in the future.

Without entering into a comparison of the relative merits of the two "schools of thought," Aberdeen and Cambridge, as to the contributory causes of bee disease, a brief report as to the present position of the epidemic will be of interest. Taking the case of one apiary of forty-six hives, all of them imported last year from the mainland, and which seemed in perfectly good health at the end of the summer, it was found on examining the broods last week that twenty-eight out of forty-six had perished. Whether the remainder will survive the rest of the winter it is difficult to say. This proves to a certain extent that feeding with medicated sugar is a failure.

Following Mr. Anderson's line of thought that sugar feeding is detrimental, a case in point is as follows:—A brood of bees escaped from a hive over three years ago, and took up their habitat in the roof of a barn. In a

state of nature be it said, they have survived three winters of severe weather, and, as far as I know, are still going strong. However, the sugar theory breaks down when we take into consideration that a disease arising from sugar feeding would have been widespread, instead of being localised, as it was at the first, seeing that sugar feeding is general all over Great Britain.

Going back to the time of the outbreak of the disease in a virulent form, some fourteen years ago, the island was swept from end to end, and practically every hive of bees perished. At that time a comb of honey taken from a hive in which the disease was prevalent was brought to me for examination, and the least that could be said about it was that it was one mass of filth. The theory that the disease is not spread by coming in contact with the excrement of those affected, seeing that bees, as a rule, evacuate some distance from the hive, does not hold good. If one bee in the hive becomes affected it becomes so weak, and the dysentery so acute, that the insect is unable to leave the hive, with the result that the excrement is dispersed wherever it may happen to crawl. Sometimes it happens that bees come outside the hive and are unable to return, and finally die from exposure. It is obvious that the immediate neighbourhood of the hive must be contaminated. Mr. McLanachan's ideas of drastic disinfection are perfectly justified, and, from many points of view, if bee disease is not infectious, it looks remarkably like it.

D. F. RITCHIE.

Newport, Isle of Wight.

#### Sheep Diseases investigation.

At a meeting of the directors of the Scottish Chamber of Agriculture held on Friday, 26th July, a letter was read from Mr. Hugh Duncan, LL.B., secretary of the Glasgow Veterinary College, asking the co-operation of the Chamber in raising funds for the investigation into diseases of sheep breeding to be carried out by Professor Gaiger. Reference was made to another investigation along the same lines already in progress, and the secretary was instructed to obtain information regarding the relation between the two.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.											
Week ended Aug. 3	4	6			1	1	58	101	1	28	13
Corresponding week in											
1917 ...	2	2					33	61	2	28	10
1916 ...	3	3			2	3	30	49		72	54
1915 ...	2	3			2	4	20	40		60	172
Total for 31 weeks, 1918 ...	159	179			24	65	3303	6298	247	904	359
Corresponding period in											
1917 ...	313	358			16	28	1768	3461	393	1603	690
1916 ...	348	409	1	24	34	87	1620	3690	178	3042	8439
1915 ...	393	451			34	63	1540	11179	159	2747	12360

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive.  
 (a) Confirmed. (b) Reported by Local Authorities † Counties affected, animals attacked:—City of Edinburgh 1  
 Board of Agriculture and Fisheries, Aug. 6, 1918 Excluding outbreaks in army horses.  
 Note.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1571.

AUGUST 17, 1918.

VOL. XXXI.

## HORSES AND MOTORS.

Amongst the many problems of the near future, one which will affect the veterinary profession both in practice and in pocket, will be the relative position of horses and motors in traction and transport. Anything like the huge displacement of horses which took place in the large towns with the advent of electrical traction is, of course, impossible, but for some years there has been a steady increase in the development of heavy motor transport with relative displacement of heavy and middle weight draught horses. The present shortage of petrol is owing chiefly to two causes—the demands of military service with its thousands of motor lorries and other vehicles; and the deficiency of freightage, from like necessity. These causes are both temporary; and with the added experience of what can be done with motor power on heavy vehicles it is more than probable that there will be an increased use of them in civil occupations.

In the direction of agricultural work there is at the moment a great increase in motor traction; there are thousands of engines in use attached to implements which were formerly horse-drawn. Many of these may be said to be on trial; a few have "come to stay", foremost among them Wyles motor plough, Fowler's, of Leeds, with others of similar type. The acceleration in the work of the plough in the farmer's everlasting gamble against time and weather makes that a foregone conclusion. The heavier types of general utility engines are on a different footing: the heavy-land farmer "has no use for them"; the light-land farmer can do with a less powerful engine. The life of the lighter built engines will be relatively shorter—and in all there is the question of time lost in stoppages, and of cost in repairs. So that although there is probability of a reduction in farm horses, it is yet a long way to the disappearance of the horse from agricultural work. This, and the increased value of live stock—now and for some years to come, which has resulted in the stock-owner finding that it pays him to utilize the knowledge and skill of the veterinary surgeon, will go far to maintain the country practitioner. To help in this direction other animal diseases are gradually being brought under control. And there is room for extension: our agricultural practice has not yet touched the poultry yard—on the continent and in U.S.A. this has been in the hands of the veterinarian for years.

So far, then, as the present outlook carries us, it appears that the future for the country practitioner is distinctly hopeful, while that of the townsman as affected by horse practice, is decidedly less so.

## AN INTRA-PALPEBRAL DIAGNOSTIC REACTION FOR EPIZOOTIC LYMPHANGITIS.

Lanfranchi published an article upon this subject in *Il Moderno Zoofatro* for 1917. The diagnosis of epizootic lymphangitis does not generally present great difficulties. The clinical picture, in its typical demonstration, is characteristic; and the microscopical examination of closed or recently opened nodules shows the cryptococcus of Rivolta. Sometimes, however, on account of the diverse phases of the evolution of the disease, the variations which that evolution may present, or the diversity of its localisations, a clinical diagnosis is not possible. Lanfranchi has, therefore, attempted to discover a specific diagnostic reaction.

As inoculating material he has used pus aseptically obtained from mature but still unopened nodules, and very rich in cryptococci. His preparatory technique is as follows. He adds two parts of sulphuric ether to one part of the material, shakes the mixture frequently, and leaves it for twenty-four hours. He then evaporates the ether by means of a water-bath, restores the material to its primitive volume by adding distilled water, shakes it afresh, and leaves it for another twenty-four hours, after which he places it in a water-bath at 80° C. for from 15 to 20 minutes. When it has cooled, he places it in an electric centrifuge at from 2000 to 3000 revolutions per minute for from 20 to 30 minutes, after which he decants the liquid part, which is that to be injected. The dose varies from 2½ c.c. to 3 c.c., according to the richness in cryptococci of the pus used; and the injection is made intrapalpebrally as in the case of mallein.

In healthy horses, in glandered ones, and in those suffering from strangles or ordinary lymphangitis, the injection of the extract obtained in this manner produces an oedema limited to the point of injection, or at most to the lower eyelid. The oedema commences at the end of one or two hours, reaches its maximum at the end of eight or ten hours, and disappears totally in from 20 to 24 hours.

In horses affected with epizootic lymphangitis the local reaction commences at the second hour, and in the fourth hour is diffused all over the lower eyelid, notably diminishing the palpebral fissure. The oedema augments, and in from twenty-four to forty-eight hours reaches the inferior limit of the zygomatic crest. This reaction persists for some hours, and disappears gradually. The oedematous part is tense, warm, and very sensitive.

In addition, purulent conjunctivitis is observed. At the end of four hours, small clots of a yellowish material are seen in the internal angle of the eye,



and these increase in the next twenty-four to forty-eight hours. In some animals the discharge is abundant, and flows out from the lower eyelid.

These manifestations are more intense and more lasting in animals presenting incipient lesions, the nodules of which are not yet mature and are few in number.

The local positive reaction is accompanied by a certain thermic reaction, which commences seven or eight hours after the injection, reaches its maximum at from the eighteenth to the twenty-fourth hour, and returns to the normal at the end of from twenty-four to forty-eight hours. A general reaction, on the contrary, is absent in the majority of cases.

Lanfranchi concludes by admitting that his experiments do not yet confer a general practical utility upon the method. That can only be gained when a culture medium is found in which *Rivolta's cryptococcus* develops luxuriantly and abundantly. —(*Revista de Veterinaria de Espana*).

#### PULMONARY SARCOMA CAUSING SYMPTOMS OF EMPHYSEMA.

Fröhner recorded this case in the *Monatsheft für praktische Tierheilkunde*. An eight-year-old mare showed symptoms of intense pulmonary emphysema—great dyspnea of marked abdominal type, respiratory movements numbering from 60 to 80 per minute, excessive extension of the tympanic sound upon percussion as far as the last rib, absence of pulmonary sonority in the pulmonary zones, and accentuated vesicular respiration. Post-mortem examination revealed sarcoma of both lungs. The lungs were double their normal volume, and section revealed numerous hard sarcomatous centres ranging from the size of peas to that of beans. The case shows that it is not possible to diagnose pulmonary emphysema with absolute certainty during life.—(*Revista Veterinaria de Espana*).

W. R. C.

#### PERSONAL INFLUENCE OF THE INSPECTOR.

By Dr. W. H. DALRYMPLE, Department of Veterinary Science, Louisiana State University, Baton Rouge, La.

The following is an abstract of a highly instructive address delivered by Dr. Dalrymple at the conference of Bureau inspectors engaged in tick eradication work held at New Orleans, Louisiana, January 15-18, 1918.

[We reprint this abstract with not a little pleasure: First because Dr. Dalrymple is an old correspondent—he is a Glasgow College graduate—and we are pleased to see him "making good." Secondly because he is here urging a point that has several times been put forward in these pages—that it is necessary, very necessary, to attend to the education of the stock owner. It is true that we have not tick-fever nor, at present, pleuro-pneumonia to deal with: but there are others to "get on with."]

"THE MAN IN AUTHORITY. One of the most desirable and valuable qualifications in the man with authority is first of all an accurate knowledge of the work over which he presides and the gift of being able to handle other men satisfactorily. Although a man may be a master in the details of his work, yet if he is lacking in

the personality and tact necessary to success his manner is more liable to repel than attract people to him, with the resultant lack of cooperation afforded him, and consequent hindrance to the accomplishment of the ends desired.

It is generally conceded that the greatest obstacle to the most successful prosecution of veterinary sanitary work, in which may be included tick eradication, is the gross ignorance of the people as to the procedure and the ultimate result sought. Antagonism is displayed despite the fact that the work is carried on for their individual benefit and that of the community and state in which they live. And yet, without some effort being consistently and continuously exerted to dispel such ignorance, final success must of necessity be considerably delayed. Hence in this particular phase of the work success depends largely upon the men in authority being endowed with personal magnetism and tactfulness.

(Dr. Dalrymple at this point related several entertaining instances in his early work as a veterinary inspector in Ireland in connection with contagious pleuro-pneumonia. The reminiscences illustrated very forcibly the value and importance of tolerance and tactfulness in inspiring confidence in the people, and securing their good-will and cooperation).

OBSTACLES TO TICK ERADICATION. Anyone who has been in touch with tick eradication since the beginning of the campaign knows the trials and tribulations through which he has had to pass and the many obstacles which have incessantly confronted him. While many of these have been overcome there still exist, and will to the end, those of a similar character which must be tackled.

In mentioning a few of these obstacles I think we may give ignorance, which might be extended to gross all-round ignorance on the part of the laity, the very first place. Ignorance concerning the true object to be attained; ignorance regarding the fever tick and its life habits; ignorance concerning the methods of procedure for the destruction of the parasite and the fever with it; and ignorance as to the value of the work to the individual cattle owner, etc.

It appears to me, that with an average amount of tact, and a little more condescension, if you will, a great deal of this ignorance might be dispelled by a little man-to-man and heart-to-heart talk concerning the various phases of the problem. In other words, letting in the true light to the darkened understandings, for the normal individual, even with the densest sort of comprehension, may be made to see and understand if only the problem is clearly explained to him and more particularly if it is done in a tactful way and in a manner which appeals to the man, arouses his interest, and gains his confidence, friendship, and good-will.

True, suspicion is a dominant factor with many of these people. This, too, is born of ignorance, through erroneous information proffered by similarly ignorant or suspicious individuals. Once ignorance is dispelled, suspicion also will gradually vanish.

The lack of cooperation is a tremendous obstacle in this important work; and where are we to place the cause for this want of sympathy, if not in the ignorance of so many of our people? Cooperation suggests correct understanding and enthusiasm; and once the people get understanding through enlightenment, cooperation is bound to follow. It cannot be otherwise; a man may be ignorant, but that is no indication of his being a fool, to his own detriment, if once he sees the light.

SELFISH OBJECTORS. There is another class of people who, although they may not be wholly ignorant of conditions, yet for selfish personal reasons frequently obstruct the progress of tick eradication. I refer to the man with cattle but with insufficient or no pasture of his own, and depending for the sustenance of his cattle

upon free range or the generosity of his neighbour. This man fears a stock law which he considers would interfere with his business, and for purely personal reasons he has no sympathy with the work, and blatantly calls out for "personal liberty," which he seems to interpret as the right to selfishly benefit himself at the expense of his neighbour and everybody around him. Then we have the unpatriotic citizen who seems to object to contribute his due share to taxation through legitimate assessment of his cattle, which he believes the work of tick eradication would force him to do. We are all familiar with these obstructionists, and time will, of course, eventually straighten them out through the general enactment and enforcement of suitable legislation. This desirable result, however, may be very materially assisted by accurate information judiciously and tactfully imparted to the people themselves.

There is another class of obstructionist who bobs up periodically and who, unfortunately, is rather effective in his methods. I refer to the little politician with some petty political office in view. This man carefully feels the pulse of his community regarding the tick eradication question, and if he finds that ignorance prevails and consequently an aversion to the work, he loses no opportunity to add to this ignorance and to strengthen the people in their spirit of aversion. He simply plays upon the credulity of the uninformed, so that he may successfully ride into office through their votes.

This class of citizen usually knows better, but his campaign is conducted in an absolutely selfish manner, without any regard whatever for the real good of his neighbours or for the successful development of his community or of his state. He is a dangerous man, however, because through his sophomoric campaign talks and speeches he is frequently able to sway the minds of the people, and in some instances the minds of the local authorities in the county, whose assistance and cooperation are so much needed to successfully carry on the work, by posing as the "friend of the poor farmer" against imaginary governmental aggression.

Even in a case of this kind there is a remedy. The "toxin" of ignorance must be carefully combated by the judicious use of the "antitoxin" of knowledge. In other words our poorly informed people must be educated, so that they may be able to think intelligently for themselves and base their conclusions upon proved facts.

**SUMMARY.** As this whole matter appears to me, it would seem to resolve itself into two main issues, *viz.*:

1. The fact that great ignorance still prevails concerning the work of tick eradication, and which must of necessity be dispelled before we may hope to reach the goal of tick freedom in the shortest possible time; and

2. That the only feasible method to accomplish this, as I see it, is through the education of the people; which I believe will largely devolve upon the county inspector, who is presumed to come into daily contact with the cattle owners in his immediate locality.

This would suggest, therefore, that the inspector must not only be familiar with every phase of the work, but he should be an educator—shall I say of the kindergarten type? because it should be remembered that his "pupils" are but babies in knowledge of the problem he is trying to solve. He should be patient, tolerant, and sympathetic, but withal he should be firm, and he should be a student of human nature, so that he may draw the people to him through being able to adapt himself to their various idiosyncracies, their peculiarities of temperament, etc.

Education, therefore, is the surest weapon we possess with which to bring the tick fight to a "peaceful issue" in the shortest time possible, because it will bring with it all other measures necessary to accomplish the final result.

I fully realize, of course, the magnificent work that has already been done in the face of all the obstacles mentioned, and no doubt others which I have failed to allude to. There is a great deal yet to be accomplished, and there is still an immense amount of gross ignorance, and what I have said is more in the nature of an appeal to those who expect to be in the fight during the remainder of the campaign.

Finally, we must always bear in mind that this country is at grips with the most powerful (military) and relentless foe which possibly the world has ever known, in the greatest conflict of which there is any record in history, and on the outcome of which depend momentous consequences. Therefore, everything that it is possible to do to conserve and increase the food supply in meat and meat-food products at this time of stress, and for some time in the future, should be done, not alone from the standpoint of patriotism but as an absolute necessity—in fact a war measure. I am of the opinion that the successful early completion of the work of tick eradication in the South will be one of the most potent factors in aiding our country and our associates in the war to decide the conflict favourably."—*Journal of the American Veterinary Medical Association.*

#### ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

A meeting was held at 50 Friar Street, Reading, on Friday, July 26, when Mr. J. Willett, President, was in the chair; and there were also present: Messrs. F. W. Willett, Staines; J. Parker, Faringdon; J. R. Baxter, Lechlade; and G. P. Male, Hon. Sec. and Treasurer, Reading.

Apologies for non-attendance were received from Messrs. W. A. Hancock, Uxbridge; J. East, Aylesbury; S. H. Slocock, Hounslow; T. B. Goodall, Christchurch; W. Pauer, Blackwater; G. E. King, Abingdon; J. Varney, Winslow; J. McKerlie, Hungerford; R. J. Verney, Oxford; J. W. McIntosh and Prof. G. H. Wooldridge, London.

**Correspondence.** In January the Association passed a resolution expressing sympathy with Mr. King in his illness, and Mrs. King had written acknowledging the letter with many thanks.

Mr. Bullock had also written acknowledging a special donation of £1 19s. 4d. to the Victoria Veterinary Benevolent Fund, and expressing the hope that the excellent example set by the Royal Counties would be followed by other Societies.

**Election of Members.** The following were elected members of the Association: Prof. G. H. Wooldridge, F.R.C.V.S., London; Mr. F. W. Willett, M.R.C.V.S., Staines; Mr. R. G. Gillard, M.R.C.V.S., Oxford.

The Hon. Sec. said that since their last meeting Mrs. Willett, wife of their esteemed President, had passed away. He was sure they would wish to pass a vote of condolence to him in his very great bereavement. Mrs. Willett was a personal friend, and also a very great friend of that Association. He attended the funeral as representing the Association.

The vote was passed in silence, all the members standing.

The President made feeling acknowledgment.

#### VETERINARY FEES.

The meeting then discussed a resolution passed by the National V.M.A. at their last meeting in London, re an increase in Veterinary Fees.

The President said that their Secretary and he attended that meeting in London, and it was chiefly

through Mr. Male that the resolution proposing that the matter be discussed by the Branches had been carried. Unfortunately, however, the decisions arrived at had not been published, but at his urgent request Prof. Wooldridge, after consultation with the President, had inserted it in *The Veterinary Record* last week. It was of no use hanging it up until after the war, and it was necessary to go into the matter quickly so that it should be a guide to the profession. If the increase was agreed to a veterinary surgeon could then go with a paper in his hand to show that this was the case. He suggested that each item should be discussed separately.

Mr. MALE said it is really a matter for the local Associations, as the fees differ in different parts of the country. He thought it better if each Association discussed the matter, and if all the members agreed to the suggested increase and loyally carried it out there would be no difficulty with their clients. It was of no use passing resolutions unless all intended to carry them out. Live stock had increased so much in value, and farmers and others were in a better position now than ever before, all our expenses had increased enormously and we appeared to be the only people who had not proportionately raised their fees.

Mr. F. W. WILLETT said they understood that at Manchester and the north they would raise the fees by 50 per cent., and in other districts by 33½ per cent. He had found no difficulty in obtaining an increase of 25 per cent. by simply adding that amount to the bills.

Mr. PARKER said he had been charging 20 per cent. He thought 25 per cent. would be a fair charge, and that clients would not object. Charge them any more and he thought they would object. The price of petrol, drugs, wages, etc., had gone up so much that the fees must be increased to correspond.

The PRESIDENT: Would you increase on each item or show the added amount at end of the account?

Mr. PARKER: At the end of the account. I propose we increase the fees by 25 per cent. as compared with our pre-war charges.

Mr. BAXTER seconded, and the proposal was adopted.

*Double fees for night work.* Mr. MALE said that if they had done nothing else at that meeting of the National than to decide to charge double fees for night work they would have done a very good evening's work.

As to his own practice there had never previously been so many night calls as there were now. Farmers worked hard in the fields and did not send until they had returned home, had a cup of tea, a wash, and a walk round the case again. Then they sent round about 10 or 11 p.m. When everyone was short handed it was not fair to work them day and night; but such work was on the increase.

Mr. PARKER thought that if a double fee were charged they would be sent for earlier. He agreed that night cases were on the increase.

Mr. MALE mentioned that there was one town where the veterinary surgeons were absolutely agreed that they would not go out at night if it was a case that could be treated in the day.

Mr. Male then proposed that double fees be charged after 6 p.m. in the winter, and after 8 p.m. in the summer.

Mr. BAXTER seconded the proposal, which was agreed to.

*Fees for Examination and Castration.* The PRESIDENT proposed that the resolution of the National be amended to read, "That the *minimum* fee for a complete examination for soundness of a horse, with certificate, be £1 1s., and for partial examination 10/6, and for castration 10/6." This was seconded by Mr. F. W. Willett, and agreed to.

The PRESIDENT suggested that they obtain printed copies of what they agreed to and supply one to each

member of the Association, so that they could hang them up in their surgeries.

*Fees paid by Insurance Companies.* After some discussion, the President proposed that as the fees already recommended by the National had not yet been paid or agreed to, they refer the matter back to the National, with a view to their making some further attempt to influence the Insurance Companies. This was agreed to.

Mr. BAXTER submitted the fees that the Eagle, Star, and British Dominions Insurance Company were agreeable to give, and the meeting considered they were a good advance on other Insurance Companies, but even these did not come up to the scale suggested by the National.

*Mileage allowance.* Mr. MALE proposed, and it was carried: That Government offices be approached by the National V.M.A. to increase considerably the mileage fees allowed to veterinary surgeons, owing to the greatly increased charges for transport.

The PRESIDENT proposed: That the first three items be published as soon as possible, printed on cards, and sent to members of the Royal Counties V.M.A.

The HON. SEC. said this should be done.

#### NEW FORAGE ORDER.

Mr. MALE said the new Forage Order came into force the previous day. The Board of Trade announced that chaff fed to horses shall contain not less than one-third of straw, and no hay shall be fed without first being converted into chaff. That applied to the feeding of town horses. Personally, he was of opinion that a certain amount of long hay was absolutely necessary to keep horses in health. All the old stock of hay had been taken by the army—all the best, and only new hay was left. That would not be very good until it had had some heat on it. The feeding of horses would be a very serious matter during the coming winter. He would suggest to the Board of Trade that if only a limited amount of hay is to be given, it should be given at the discretion of the owner, and not necessarily as chaff. Many of the mangers in towns were little iron mangers. The horses threw out the hay to get down to the oats; consequently half of the hay chaff would be wasted; also, the horses, being hungry, would eat the chaff ravenously without chewing it.

Mr. PARKER: It is a decided advantage to have long hay.

The PRESIDENT said he used to be of the same opinion as Mr. Male, but the best stud of horses in town did not have a bit of long hay. They were, however, fed scientifically—one mixture for heavy horses, another for vanners, and another for cobs; that might account for the success.

Mr. MALE said he had been speaking to one of the largest firms of horse owners in the South of England, and a very scientific man fed the horses. This man had twenty years experience. When he first went to this firm he gave the horses all chaff, and it was quite the usual thing for them to have at least one case of colic a week. Now there was not a case in three months, chiefly because the horses have long hay. When he was a pupil he had experience of a very large stud of Shires containing seven champion mares, and there were constantly cases of impaction. They advised long hay, and the firm finally consented to use it. Since then it was rare to have a case of colic, while not one mare had died of impaction during a number of years.

Mr. Male's suggestion to the Board of Trade was approved.

The HON. SEC. congratulated their President on the great honour that had been conferred upon him, an honour which was thoroughly deserved. Not many members of their profession had received honours—only two of their civilian members during the war. It could

not be because they had not done splendid work for their country, but the fact remained that they had not been honoured. They were, therefore, especially pleased that their President was one of the two upon whom honour had been conferred. (Applause).

The PRESIDENT thanked them very much for their congratulations. He was very proud of the honour.

#### CALCULI.

Mr. PARKER mentioned that he attended a ten-year-old mare that had come down from town. She had been put to stud the day before, and it was thought that the horse had injured her. She would stand quietly for a time then walk about and lie down. She was swollen up and very tympanitic. He treated her, but she died two days afterwards. She was sent to the knacker, who brought back three large stones found in the flatting colon. One stone had pronounced facets where it had rubbed against another.

The PRESIDENT: You may depend the nucleus was a small piece of wire. I have seen this mostly in Corporation horses where they had been collecting the dust.

Mr. MALE said that some years ago he was interested as to whether an operation was not feasible in these cases. The thing was to get them diagnosed early enough to give them a chance. He operated in one case through the flank, and found three large calculi. He took one out, but it was impossible to get the other calculi from the large colon, as one could not get the bowel through the flank wound where, of course, the operation had to be performed. In the case of the small colon there was not that same difficulty, and he thought if it could be diagnosed early an operation might be successful.

Mr. PARKER also mentioned the case of a Shire filly which had two foals, and each of them suffered from umbilical hernia, showing the hereditary nature of the disease.

A vote of thanks to the President concluded the meeting.

G. P. MALE, Hon. Sec. and Treas.

#### The American Veterinary Colleges.

Some weeks ago reference was made in these pages to the enormous advance in the qualification of Veterinary Surgeons in U.S.A. in the last twenty years. The remarks which we quote below appear in the editorial pages of *Journal of the American Veterinary Medical Association* for May: they show that the work is steadily proceeding, and incidentally how different is their machinery for the purpose, and what a "live" interest their National Association takes in the welfare of the profession. Too often in this country practitioners are content to slide off what blame they can on the Council R.C.V.S. Across the water the men attend to the professional interests themselves.

"We have reached a point which is daily becoming more acute, where the veterinary colleges of North America, both State and private, must be so classified that prospective students who desire to take up the study of veterinary science will have some sort of a guide to aid them in choosing the particular institution from which to obtain instruction. Under existing conditions the prospective student has no means of definitely ascertaining which are accredited institutions and which are not. He usually applies to the most available college irrespective of its standing only to find when it is perhaps too late and to his sorrow that his chosen *alma mater* has a questionable standing, if any, with the profession.

Young men have come to the writer after graduation

from unrecognised colleges seeking to obtain membership in the American Veterinary Medical Association and other recognition, and have stated that they entered such institutions without knowledge and with no means of obtaining information which would in any way enlighten them as to their character and standing. They naturally assumed that so long as such colleges were operating under Government sanction by State charter that everything was as it should be.

That there is an element of injustice in all this, that should be remedied if possible, goes without saying. The big problem confronting us is to determine wherein lies the remedy. In order to start the ball rolling in this direction the following suggestion is offered: That all colleges on this continent be scored by the committee on intelligence and education of the A.V.M.A., and depending upon the score obtained each college be placed in class A, B, or C, depending upon their facilities and qualifications to give instruction. This plan has been and is being followed out by the Association of American Medical Colleges, and that it has been successful is attested by the fact that the Surgeon General has decreed that only medical men who are graduates of A or B Colleges, as classified by the Association of American Medical Colleges, can obtain entry into the United States Service. Graduates of class C colleges cannot enter the Medical Corps as officers, and boards of examiners of many states will not permit them to take state board examinations for entrance into private practice."

#### Professional differences at Reigate.

At the Reigate Town Council, on Monday night, a discussion arose out of a resolution of the Highways and Works Committee which ran: "That this Committee adheres to its former decision authorising the Borough Surveyor, in the event of a second veterinary's opinion being required, to employ Mr. C. W. Howard for the purpose, and that Mr. Squair be so informed."

Mr. C. A. Squair, the veterinary surgeon to the Corporation, had refused to meet Mr. Howard, of Dorking, in consultation respecting a matter concerning the destruction of one of the Council's horses.

In reply to Alderman Barnes it was stated by Mr. Dean they were in a pretty predicament, and he wished to move as an amendment of the Committee's resolution: "That in the event of a second veterinary's opinion being required the Surveyor may call in one." He pointed out that owing to some little difference of opinion in respect to some other business Mr. Squair was not prepared to meet Mr. Howard. Owing to what had taken place he thought if his amendment was carried it would be in the interest of the Corporation and all parties concerned. Should they dispense with the services of Mr. Squair they would be in a fix, as there was no other veterinary within six miles of the Borough. That was the first time since he had been a member of the Stables Sub-Committee that they had had any occasion to call in a second veterinary.

Alderman Farrington seconded on the ground that it was unfair to the veterinary to force him to confer with one particular man, and he did not think they should compel him to meet any one man.

Dr. Duncalfe said if they passed the amendment they gave an open order, and the natural assumption was that the officer who would be called in would be Mr. Howard.

Past events were discussed, and Mr. Priest pointed out that it was unfortunate the matter had been raised in public, and said it was assuming undue proportions. Mr. Squair was asked by the Committee to explain why he refused to meet the veterinary surgeon called in by

the Surveyor, and after hearing Mr. Squair's explanation the Committee, although by no means unanimous, were satisfied on his refusal. The matter would have ended there if subsequent statements had not been made. The matter was further investigated, and Mr. Squair's statements were found to be substantially true. The matter was one between two professional men, and the Council would be well advised to leave it at that.

Alderman Barnes said Mr. Squair had been veterinary surgeon for the Corporation over twenty years, and to his mind there had been no fault whatever to find with him. After dealing with other matter he suggested there should be added to the amendment the words: "In conjunction with the present veterinary surgeon." Mr. Squair had the Corporation affairs at heart and he had unqualified confidence in Mr. Squair's integrity and ability.

Alderman Gilbert contended that there was something underlying the whole business, and he did not like the resolution or the amendment.

Mr. Ongley argued that Mr. Squair had set the Committee at defiance as he would not meet the veterinary surgeon who had been called in. The Surveyor had charge of the horses, and he had a right to call in a second veterinary in the circumstances.

The Chairman expressed the opinion that they should not go into details, and Mr. Ongley contended they were entitled to have the whole facts placed before the Council. He proceeded to give the details, and said if the amendment was carried they would be striking a blow at Mr. Howard.

Mr. Goad: It is madness to call in two men who are antagonists.

Mr. Woodruffe thought the quarrel between Mr. Squair and Mr. Howard had nothing to do with the Council, and it was a great mistake that any member should have referred to it. They were wrong in confusing themselves to one man as they had in the district other good men who could be called in.

Alderman Ince argued if there was a quarrel between the two veterinary surgeons the Council had a right to step in. The Alderman then recited facts as he knew them, and said Mr. Squair had stated or written that if the Corporation gave him a blank check to fill in any amount he pleased he would not meet Mr. Howard. A certain statement was made which came to the ears of Mr. Howard, and it was likely to do him harm professionally. That statement went to the College of Veterinary Surgeons, and the College saw it was not a matter which concerned them as a College, and took no steps in regard to it, and that they had nothing against Mr. Howard. In fact they went further, and said that Mr. Howard was not called upon to answer any statement which had been made. Consequently Mr. Howard was completely exonerated by the College from any charge of professional misconduct. If the Corporation approved of Mr. Squair declining to have anything to do with Mr. Howard it meant that they believed the statement he had been guilty of professional mis-language. (No, no). He held no brief for either man, and all he was anxious about was that the facts should be presented to the Council.

The Chairman thought Alderman Ince had shown them good reason why they should not pass the resolution. By carrying the amendment there was no condemnation of Mr. Howard.

There was further discussion as to the wording of the amendment, which ran as follows: "That in the event of second veterinary's opinion being required another veterinary surgeon be called in by the Surveyor after consultation with the Chairman of the Committee and the present veterinary surgeon."

The amendment was carried by twelve votes to five.—*West Surrey Gazette.*

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

H. J. Allen, Capt. A.V.C.	£1	1	0
R. P. Jones, Capt. A.V.C.	2	2	0
W. H. Macfarlane, Capt. A.V.C.	1	1	0
A. D. Morgan, Capt. A.V.C.	1	1	0
E. Morgan, Venezuela, S. America	1	1	0
D. E. Orr, Capt. A.V.C.	1	1	0
T. F. Spencer, Kettering			
(1916-17-18-19-20)	5	5	0
E. G. Turner, D.S.O., Capt. A.V.C.			
(1916-17-18)	3	0	0
James Latta, Ulverston	1	1	0
E. P. Shallcross, Lieut. A.V.C.	1	1	0
S. M. Skues, Capt. S.A.V.C.	1	1	0
Previously acknowledged	940	7	11
	£959	2	11

#### ARMY VETERINARY SERVICE

War Office, Aug. 13.

The names of the following have been brought to the notice of the Secretary of State for War for valuable services rendered in connexion with the war:—

\* \* \* \*

Capt. A. F. Castle (T.F.); Capt. (actg. Maj.) F. Chambers, F.R.C.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Aug. 10.

#### REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Lt. to be temp. Capt.:—F. Donne (July 23).

Graded for purposes of pay as D.A.D.O.S.—Temp. Capt. W. G. Stedman, Can. A.V.C., while holding the appt. of D.A.D.V.S. (May 29).

Aug. 13.

To be temp. Lts.:—Hon. Sec. Lt. C. W. Heane, late Sec. Lt. A.S.C., K. S. Simpson, T. H. Jones, H. R. Allen, J. McCunn, R. W. Down, W. A. Williams (July 23); H. F. Downie, A. L. Robertson (July 23); Hon. Sec. Lt. D. E. MacRae, late Sec. Lt. R.H.A. (T.F.) (July 24).

Aug. 14.

Capt. (Bt. Maj.) S. Black to be actg. Maj. whilst comdg. a Vety. Hosp. (Mar. 10, 1917).

To be temp. Lt.:—J. R. Rider (late temp. Capt. Yeo., T.F.) (July 23).

#### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Aug. 9.

To be actg. Lt.-Cols. while comdg. Vety. Hosps.:—Capt. (actg. Maj.) J. McArthur, Capt. (temp. Maj.) T. D. Young, O.B.E. (June 15).

#### THE BRYDON CHALLENGE SHIELD.

The Scottish agricultural papers announce that Mrs. Brydon has generously offered to renew the Brydon Challenge Shield for Clydesdales. This will be a fine tribute to the memory of the late Robert Brydon.

Major LEIGHTON, Veterinary Medical Inspector of the Local Government Board for Scotland, has been appointed to act in an advisory capacity in relation to the "organic" side of the work of the National Salvage Council in Scotland.

### An American on utility horses.

The following, a portion of a long letter to *Live Stock Journal*, exhibits a phase of the bad old practice of breeding from inferior stock; it is peculiar in that these American farmers are credited with care in the breeding of oxen and swine but neglect in the selection of their horses. The argument suggested is that the former means a direct increase in value and an early return, whereas the horses are not so readily converted to cash: but a decently bred animal would realize better than a mongrel, and it says little for the intelligence or the self-respect of the farmer—either in Britain or America—who is satisfied to breed and use such animals.

"Horsely speaking, we are a nation of careless, happy-go-lucky, unscientific breeders of horses. The thoroughbred and standard-bred trotter have become racing machines, and are too delicately constructed for any other use or purpose. The trotter is not a fixed type. On the Grand Circuit appears a mare scant of fifteen hands, narrow, spindle legged, small eared, small headed, a watch chain ornament, with the speed of the wind. The next race is won in as fast time by a gaunt, sixteen and a half hand, long legged, long eared, long headed, big footed, long barrelled ghost; the following one by a short backed, compact, arched necked, deep chested, big hearted, beautifully proportioned model for a sculptor.

Our farmers have no horses—they have no type, no consistent idea of breeding, no knowledge of what breeding consists in, no desire to produce a horse of quality, suitable for their locality and for their work. Such horses as they have are typically American, having their foundation sources in all the breeds of all the countries which have ever bred a horse. On the average farm the horses bear no relation to the work and none to each other. Feed, horse-power, and mobility are recklessly wasted. Horses of a farmer should be a valuable asset, just as his cattle, his hogs, his sheep, his turkeys, his hens, his ducks. To be such they should be bred with as much care and attention as his herds, his flocks, and his droves. The cattle, swine, and sheep raised in this country compare favourably with their foundation stock. In fact, many surpass those of the older countries. The American breeder of cattle, sheep, and hogs gives close attention, great care, and sufficient feed to go on with the breed to which he has attached himself or was born into. The small farmer, taking his cue from the big breeders, also takes pride in keeping up his herd of cattle to the highest notch of efficiency. A cattle buyer driving the country can stop at every farm where beef cattle are kept with positive assurance that the cattle will grade high. A good horse is a phenomenon. The entire township knows where such a horse is. It is to them the eighth wonder of the world. The lucky farmer that owns the good horse has no use for it because it has no mate.

True, stallion licence laws exist in twenty-one States, but many a stallion which can comply with the laws nevertheless should not be used without regard being had for the benefit produced by such use—the correction to be made upon horses which have been wandering from type. As type does not exist in America, the use of a licensed stallion is quite as haphazard in the results as though no such laws existed. The laws are designed to bar inherited unsoundness. Many sound horses are not as valuable to farmers to work as horses which have the will to work and some trifling unsoundness even inherited. He has good working knowledge of soils, machinery, and farm management. You can not 'flunk' him in protein, glucose, fibre or fat. He knows the value of all classes of manures and commercial fertilisers. He is full of sulphates and phosphates and nitrates and carbohydrates. He makes a study of the rotation of crops. He is wise about concentrates

and roughages and silage. Yet he remains in sublime ignorance of the most useful motor power needed, its care and cultivation. Any four-legged beast in the guise of a horse which will stretch a trace suffices."

### Royal Veterinary College, London.

The Duke of Connaught presided at the forty-third annual meeting of the Royal Veterinary College, London. Lord Moreton, in presenting the report, said the Governors reported that, notwithstanding the difficulties of working with a depleted staff, the educational work of the College had been carried out in a satisfactory manner, but they regretted to announce that, in spite of every possible economy, the accounts for the financial year showed an excess of expenditure over income of £1109. Owing to the unsatisfactory state of the College finances, the Governors made an application in October last to the Board of Agriculture and Fisheries for the renewal of the annual grant of £1300 towards the veterinary education provided by the College, which was withdrawn in September, 1914. The Governors were glad to announce that the Board had made a grant of £650 in respect of the academic year to 30th September, 1917.

Lord Northbrook having seconded, the Duke of Connaught said he felt very much for the Society in the difficulties under which they were working for the moment, but he supposed they were not singular. Other institutions were suffering from the effects of the war, and they must hope for the best. He warmly congratulated them on the splendid work done at the College.

Subsequently His Royal Highness commented on the splendid condition of the horses in France, and said the horses looked much better in France than in Great Britain, which brought forth the remark, "They are better rationed."

### Personal.

At the Annual Meeting Ryl. Vety. College, Camden Town, it was announced that the Coleman silver medal had been awarded to Mr. W. A. Williams, and the bronze medal to Mr. J. M'Cunn.

The marriage of Miss Grace Thompson, only daughter of Mr. Henry Thompson, M.R.C.V.S., and Mrs. Thompson, Beacon View, Aspatria, to Mr. Edward Reeve, N.Sc. of the Royal Colchester Grammar School, youngest son of Mrs. and the late Mr. George Reeve, Utttoxeter, Staffs., took place at St. Kentigern's Church, Aspatria, on Thursday, 8th inst. The Vicar, Rev. T. Hackworth, officiated. The esteem in which the bride's family are held in the district and the personal popularity of Miss Thompson brought together a considerable number of people to witness the ceremony, the church being filled. The bride was given away by her father. The bridesmaid was Miss M. Holliday, cousin of the bridegroom.

A long list of presents appears in *West Cumberland Times* of 10th inst., in which there are many familiar Cumberland names: it includes "Silver tea and coffee service—Directors of the Agricultural Co-operative Society, Aspatria."

### DISSATISFIED.

To the Editor of "The Veterinary Record."

I heartily endorse the opinion of "Dissatisfied" in your last week's issue. Some of us after four years service and invalided home, find ourselves worse off financially than when we were Lieutenants, because we are in camps built before war and, therefore, receive no allowances. It is obvious that the Council which have been credited with doing so much for us have signally failed when such conditions exist.

From another *nom de plume* of necessity,

NEMO.



## OBITUARY.

GEORGE COLLEY BLAND, M.R.C.V.S., Boston, Lincoln.  
Graduated, Lond: April, 1865.  
Mr. Bland died 8th August, aged 74.

KENNETH VIVIAN KING, Lieut. R.A.F., younger and dearly beloved son of Mr. and Mrs. G. E. King, The Vineyard, Abingdon-on-Thames, killed while acting as pilot during a bombing raid upon German Divisional Headquarters, July 30.

## Cattle Trade in Brazil.

"The Brazilian Government, it is stated, hopes to facilitate in every way, both financially and otherwise, the importation of large numbers of first-class cattle—the import of as many as 120,000 bulls is contemplated within the next ten years. Already many head of cattle (1000 Herefords) have been brought down from the States. Many have been imported from the Argentine,

and 60 zebus were recently imported from India, fetching very high prices. A syndicate is shortly to be formed to import cattle from the United Kingdom, which is to be backed up by the Government. At present it is only a question of bulls, but it is probable that the idea will expand to include the importation of cows, sheep, and pigs. The Government is willing to expend a large sum of money to help the local breeders and allow free transport by rail. It is thought by competent persons that Brazil will very soon be the most important cattle rearing country in the world. It will be to the advantage of European breeders of cattle to assist the local cattle breeder as far as possible to improve his stock in order to receive, in return, better meat."—*Board of Trade Journal*.

A pig, sold for killing purposes in Guildford Market in the last week in June, realised £30. The pre-war price would have been about £7.

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)			(a)	
Gr. BRITAIN.											
Week ended Aug. 10	4	5					27	36		30	9
Corresponding week in											
1917 ...	5	6			1	1	31	65		26	10
1916 ...	5	6				2	22	34		52	35
1915 ...	7	7			1	1	10	22		65	226
Total for 32 weeks, 1918	163	184			23	64	3330	6324	247	934	368
Corresponding period in											
1917 ...	318	364			17	29	1799	3526	393	1629	700
1916 ...	353	415	1	24	34	89	1642	3724	178	3094	8474
1915 ...	400	458			35	64	1550	1201	159	2812	12586

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Aug. 13, 1918

‡ Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND. Week ended July 20	...	...	...	...	...	...	Outbreaks 2	...	...	...
Corresponding Week in										
1917 ...	...	...	...	...	...	...	...	1	3	3
1916 ...	...	...	...	...	...	...	3	8	13	52
1915 ...	...	...	...	...	...	...	4	2	8	24
Total for 29 weeks, 1918	2	2	...	...	...	...	81	182	12	45
Corresponding period in										
1917 ...	3	5	...	...	1	1	29	236	153	963
1916 ...	3	7	...	...	...	...	41	240	189	1058
1915 ...	1	1	...	...	1	3	44	262	154	871

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, July 22, 1918.

IRELAND. Week ended Aug. 3	...	...	...	...	...	...	Outbreaks 2	6	1	6
Corresponding Week in										
1917 ...	...	...	...	...	...	...	1	4	4	6
1916 ...	...	...	...	...	...	...	1	6	5	45
1915 ...	...	...	...	...	...	...	...	4	3	16
Total for 31 weeks, 1918	2	2	...	...	...	...	83	188	15	54
Corresponding period in										
1917 ...	3	5	...	...	1	1	33	243	166	986
1916 ...	3	7	...	...	...	...	44	254	199	1160
1915 ...	1	1	...	...	1	3	44	268	162	910

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Aug. 6, 1918  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1572.

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## SWINE FEVER.

Swine fever declined very considerably last year, especially during the second half of it. There were 2104 outbreaks, as against 4331 in 1916, and 3994 in 1915. This year we are having another great decrease; and, though it hardly seems likely that at the end the figures will halve last year's returns, they will probably fall not very far short of doing so. The decline so closely follows the adoption of serum treatment that it is not unlikely that there may be a popular tendency to connect the two as effect and cause. It would be well therefore for the profession to impress upon such farmers as need the instruction the limitations of serum treatment. When serum was introduced, we were warned not to over-estimate its capacity; and a similar warning has recently emanated from the same source.

In the Annual Report of Proceedings under the Diseases of Animals Act for 1917, the lull in swine fever is considered. Here it is stated definitely that "since serum treatment can only be employed when outbreaks of the disease have actually occurred, its adoption is not calculated to operate in the direction of reducing the number of outbreaks," and it is added that "other causes must be sought" to explain the rapid fall of the disease. The Board's explanation is that "the prime factor in the reduction of the number of outbreaks is that, for reasons due to the general position in the country at large, pigs are not now moved about either in the same numbers or to the same extent as is usual in times of peace, the chances of infection being spread are proportionately reduced." It is not asserted, of course, that this is the sole factor; and very probably it may not be. In view of the many strongly marked and unaccountable ups and downs which swine fever has shown in the past, we can hardly deny that factors which we have never yet recognised must exist to influence its rise and fall. Still, there is no doubt that the Board's view of the main reason for the present position is correct.

Our most hopeful line of action against swine fever appears to be a combination of general restriction of movement with serum treatment during outbreaks. War conditions are imposing this restriction of movement upon us at present; and it will probably be continued afterwards to as great an extent as trade will permit. Our present business is to see that the fullest possible use is made of serum treatment. This can best be done by working for the early reporting of outbreaks, but without claiming for the serum results which it does not produce. Obviously it cannot eradicate swine fever; but its proper and timely use will immeasurably decrease the losses from the disease.

## HOT AIR IN THE TREATMENT OF PARAPLEGIA IN THE DOG.

Bouchez, in 1914, reported this case to the Central Society of Veterinary Medicine. The subject was a bull-bitch, which, when two years old, presented a complete posterior paraplegia, with fecal and urinary incontinence, as a result of distemper. Recovery was obtained; but a persistent emaciation of the posterior third of the body remained. When three and a half years old, during the winter, the bitch contracted a chill, and the next day she could not raise the posterior part of the body.

Ordinary treatment was employed for a week with little result. Bouchez then commenced treatment by hot air, by means of Rupalle's apparatus, which works with alcohol, and is provided with a thermometer graduated from 50° C. to 225° C. He gave two applications of hot air daily upon the lumbar region, each lasting twenty minutes; with the air first at 126° C., afterwards raised to 130° C., and continued at that temperature till the end of the application.

After the fifth application the bitch could stand on the hind limbs for a few moments, the sphincter recovered its tone, and the case began to look hopeful. The treatment was continued, always under the same conditions, and improvement was progressively accelerated. After nine days of treatment the recovery was complete.

Seven months later, in consequence of a bath, the bitch again contracted a chill. Paresis of the right hind limb, with absolute impotence of the left one, appeared. The right limb recovered its normal functions after three applications of hot air; and the left one after ten applications.—(*Revista de Higiene y Sanidad Veterinaria*).

## CONTAGIOUS AGALACTIA OF GOATS IN ALGIERS.

E. Sergent and G. Roig, in the *Bulletin de la Société de Pathologie Exotique*, give an account of studies which they carried out in the Pasteur Institute of Algiers upon an epizootic of caprine contagious agalactia which they observed in 1908. At that time Sergent was called to visit, in the neighbourhood of Algiers, a flock of goats comprising 450 head, in which, in a week, 70 ewes and some males, with some young animals, were attacked. Three or four kids died daily; and in two months 19 ewes and 105 kids had died. This disease, though not frequent, was observed ten years before in Algiers by Banguil in the towns of Guergot and Kerrata.

During this epizootic the authors were able to isolate, from the milk of all the milking animals, a

pure culture of a microbe which, when inoculated into female goats, produced no symptoms of the disease. This fact confirms the discovery of Celli and Blassi, who, in 1906, attributed the specific causation of the disease to an ultra-visible virus. The microbe found by Sargent and Roig was not pathogenic, like the pyobacillus discovered by Carré in 1912; it was more similar in its characters to the Preisz-Nocard group. Some microbes of the same group are encountered in diverse serious affections of the sheep. Their pathogenic function is not well elucidated.

The authors give the following description of the epizootic. In kids, the appetite was almost absent, the limbs were drawn under the body, the head was slightly drooped, and the hairs were bristling. Sometimes the animals were not able to stand, and fell; and convulsions were not rare. Death generally supervened at from the second to the fourth day. In exceptional cases, the temperature reached 104° F. Sometimes, in the course of the disease, severe symptoms of lameness appeared. Post-mortem examination gave negative results. In adults, the disease made less ravages than in young animals; the general symptoms were more vague; and the illness developed in a chronic form. The appetite diminished slightly; and the temperature oscillated between 102° F. and 102.5° F.

The lesions were encountered principally in the mammary glands. Sometimes a mammary gland and an articulation were attacked simultaneously.

The gland was inflamed; the lacteal secretion diminished greatly; and the milk, collected in a flask, divided into two very distinct portions. The inferior part, which was one-third to two-thirds of the total volume, was a dirty white deposit; the portion floating above this, which frequently reached two-thirds of the total volume, was a dirty white liquid, sometimes reddish. The milk had an alkaline reaction. It coagulated at 100° C., and, mixed with normal milk, coagulated it at the same temperature; it preserved this property after passing through a Chamberland F filter. At the end of fifteen days the lacteal secretion ceased almost completely. Post-mortem investigations gave negative results.

The authors attempted to reproduce the disease in goats by inoculating milk into the teat, into the peritoneum, and under the skin, by the ingestion of milk, and by cohabitation. They also inoculated small laboratory animals with infected milk. One goat, an ewe, was infected by cohabitation; but the only other experiments which gave positive results were the inoculations of milk. Inoculation of the blood of infected animals neither transmitted the disease nor had any vaccinating action. Inoculation of milk subcutaneously and intraperitoneally infected goats with certainty; but intraperitoneal inoculation did not infect the small laboratory animals. The virus became attenuated during the passages. Ingestion of infected milk did not reproduce the disease.

In the natural disease, mammary lesions were constant and articular lesions frequent; but ocular lesions were not observed. Non-lactiferous animals

only presented articular symptoms. In the experimental disease both the mammary and articular lesions were constant; and ocular lesions were observed in two out of thirteen cases.

The above-mentioned bacillus related to the Preisz-Nocard group was found constantly in the milk, but not in the blood. The authors regard it as a symbiosis of the invisible virus discovered by Celli and Blassi.—(*Revista Veterinaria de Espana*).

W. R. C.

## Royal College of Veterinary Surgeons.

### SPECIAL MEETING OF COUNCIL.

A Special Meeting of Council was held at the College, 10 Red Lion Square, London, W.C., on Friday, the 16th inst., when the following members were present:—Mr. F. W. GARNETT, President, in the Chair; Maj.-Gen. L. J. Blenkinsop, D.S.O.; Dr. O. C. Bradley; Messrs. J. C. Coleman, J. Dunstan; Prof. S. H. Gaiger; Messrs. W. J. Mulvey, T. S. Price; Prof. E. S. Shave; Mr. S. H. Slocock; Sir Stewart Stockman; Dr. J. Share-Jones, Mr. R. C. Trigger.

Apologies for absence were received from Major J. Abson; Messrs. G. A. Banham, W. F. Barrett, J. H. Carter, A. Lawson, J. McL. McCall; Sir J. M'Fadyean; Messrs. W. Packman, H. Sumner; Major-Gen. H. Thomson; Mr. S. Wharam.

The PRESIDENT explained that he had called the meeting to consider a letter from the Local Government Board with regard to the establishment of a Special Veterinary Tribunal. Acting on the instruction of the Council at its previous meeting, he had submitted the following statement of the present position to the War Office on July 12th:—

#### SUPPLY OF VETERINARY SURGEONS FOR THE ARMY.

The present situation with regard to the supply of duly qualified Veterinary Surgeons to meet the requirements of the Army Veterinary Service is as follows:—

There are on the Register of Veterinary Surgeons at date July 1st, 1918, 3350 members, of whom at least 350 are in practice outside the United Kingdom.

There are thus in the United Kingdom	3000
Of these, members over 60 years number	
approximately	240
Members practising other professions	12
Practising in Ireland	343
Total in round figures	600

2400

The Army Veterinary Service employs in	
either a civil or a military capacity	1200

Leaving in practice in Great Britain	1200
--------------------------------------	------

Of these it is estimated that one-tenth, or 120, are under the old military age.

So large a proportion of Veterinary Surgeons has already been taken away from civil practice that it has now become a matter of extreme difficulty equitably to decide on the relative claims of the War Office and of civil practice on the services of any Veterinary Surgeon.

During the past four years the Council of the Royal College of Veterinary Surgeons has used every means in its power in the endeavour to secure the services of as many qualified men as possible for the A.V.S. Without further powers it feels itself incapable of suggesting ways

and means to meet the still urgent need for qualified Veterinary Officers fit for service overseas.

Owing to the enlistment of Veterinary Students and to the effect of the Proclamations of April 20th and June 4th—calling up all students between the ages of 18 and 23, and over Grade III—the supply of graduates is fast diminishing almost to vanishing point. On the other hand, there are still in active practice in Great Britain—apart from Ireland—at least 120 young men who are at present exempted from military service by Local Tribunals on the ground of the national importance of their work. It has been impressed upon the Tribunals with much truth that no substitutes can be found. There are, however, a number of Veterinary Surgeons now serving overseas who are considerably over military age, and who require to be relieved from the strain of military duty. These could, if so relieved, act as substitutes for the younger men now exempted, but it is obvious that the equitable carrying out of such substitution could only be performed by one central Tribunal.

It is therefore suggested that the Local Government Board in pursuance of the powers given to it by the Military Service Acts, 1916-18, and under the provisions of the Military Service Regulations, 1918 (R. 185) Part III, Sec. 54, should appoint a special Tribunal to deal with all applications for the grant, renewal, or review of certificates of Exemption to Veterinary Surgeons in Great Britain.

The special Tribunal, to be called the Veterinary Tribunal, should consist of such number of members representative of the Veterinary Profession as the President of the Local Government Board may from time to time appoint.

As the Royal College of Veterinary Surgeons is the only body empowered by Act of Parliament and Royal Charter to deal with the education, examination, and registration of Veterinary Surgeons in the United Kingdom, and as the Council of the College is elected from year to year by the votes of the members of the College who constitute the Veterinary Profession, it is suggested that ten members of the Council, appointed *ad hoc*, would form a representative Veterinary Tribunal. Representatives of any Government Departments concerned could also have seats on the Tribunal.

The Veterinary Tribunal should have similar powers and duties as are prescribed for other special professional Tribunals. It should be empowered to grant certificates on occupational grounds, but only on condition that the Veterinary Surgeon shall undertake such professional service and under such conditions as the Director-General of National Service may, after consultation with the Veterinary Tribunal and in concert with any Government Department concerned, from time to time deem best in the national interests.

It should also have the power to require from the Army Veterinary Department from time to time a list of such officers now serving overseas as may be available for release from military duty. It should be the duty of the Tribunal to make arrangements for the substitution of such released officers in the place of any Veterinary Surgeon whose certificate of exemption may be withdrawn, in cases where this may appear to be necessary.

The matter was then taken up by the Army Council and brought before the Local Government Board. A conference was held at the Local Government Board on Friday, July 26th, at which the following representatives were present:—Mr. I. G. Gibbon, C.B.E., Local Government Board; Maj.-Gen. Ellison, Dep. Q.M.G.; Maj.-Gen. Blenkinsop, D.G., A.V.S.; Mr. F. W. Garnett, President R.C.V.S.; Sir Stewart Stockman, Bd. of Agric.;

Maj. Corlette, Bd. of Agric. Food Production Dept.; Mr. H. R. Selbie, Bd. of Trade, Controller of Horse Transport; Mr. J. R. Wardlaw Burnet, Ministry of National Service; Mr. P. J. Rose, Scottish Office; Mr. James Wood, Scottish Bd. of Agric. The whole position was carefully considered, and on the representations of the Army Council the Local Government Board had agreed to set up a Special Tribunal empowered to deal with the grant, renewal, or review of Certificates of Exemption to or held by duly qualified Veterinary Surgeons in Great Britain. The Board now asked the Council to nominate 12 members of Council and 8 members of the profession outside the Council, from which the President of the Local Government Board would appoint 8 members of Council and 4 outside members to form the Special Tribunal.

After discussion, it was proposed by Sir Stewart Stockman, and seconded by Mr. S. H. Slocock: "That the Council accept the invitation of the Local Government Board to nominate 12 members of Council and 8 members outside the Council, from which the Board is to appoint the Special Veterinary Tribunal of twelve members."

The motion on being put to the meeting was declared carried.

The PRESIDENT stated that he and the Secretary had had an interview at the Local Government Board and that the opinion had been expressed that it would be advisable in choosing names to arrange that there should be a sufficient number of members chosen from Scotland and the North of England to ensure that a quorum of three would be obtainable at sittings of the Tribunal held in Scotland. It was also desirable to take into consideration the geographical distribution of the members nominated.

The President of the Local Government Board had fixed the number of members of the Tribunal at 12, including the Chairman, who, it was suggested, should be the President of the Royal College of Veterinary Surgeons. Mr. Garnett stated that he had agreed to act in that capacity, and would attend as far as possible all meetings of the Tribunal wherever held.

The Council then proceeded to the selection of names, and ultimately the following list was agreed upon, the Secretary being instructed to obtain the consent of the members not present, and to forward the list to the Local Government Board:—

#### *Twelve Members of Council:*

G. A. Banham, F.R.C.V.S., Cambridge.  
Dr. O. Charnock Bradley, M.D., D.Sc., CH.B., M.R.C.V.S., Edinburgh.  
J. Clarkson, M.R.C.V.S., Garforth.  
J. C. Coleman, M.R.C.V.S., Swindon.  
J. Dunstan, M.R.C.V.S., Liskeard.  
Prof. S. H. Gaiger, F.R.C.V.S., M.R.S.I., Glasgow.  
Frank W. Garnett, C.B.E., J.P., M.R.C.V.S., Windermere.  
Sir J. M'Fadyen, LL.D., M.B., B.Sc., C.M., London.  
W. J. Mulvey, J.P., F.R.C.V.S., London.  
Dr. J. Share-Jones, D.V.Sc., M.Sc., F.R.C.V.S., Liverpool, and Acrefair, N. Wales.  
S. H. Slocock, F.R.C.V.S., Hounslow.  
P. Wilson, M.R.C.V.S., Lanark.

#### *Eight Members of the Profession outside the Council:*

Hugh Begg, F.R.C.V.S., Lanark.  
J. Brown, F.R.C.V.S., Invergordon.  
H. J. Dawes, F.R.C.V.S., West Bromwich.  
J. S. Lloyd, F.R.C.V.S., D.V.S.M., Sheffield.  
J. W. McIntosh, F.R.C.V.S., F.R.S.E., London.  
J. W. Pritchard, M.R.C.V.S., Arundel.  
J. Willett, M.R.C.V.S., London.  
W. Woods, F.R.C.V.S., Wigan.

The following names were added as Reserve nominations in the event of any of the above being unable to act:—

J. H. Carter  
A. Lawson  
J. Malcolm

J. B. Wolstenholme  
C. Sheather  
D. Hamilton

### Rinderpest in East Africa.

A few weeks back, allusion was made in a Report to a threat of Rinderpest coming south from German East Africa, and the depletion of the S. African veterinary staffs to meet it. The following abstract of reports by Mr. C. E. Gray, P.V.O. Union of S. Africa, of the expedition to check the invasion is taken from *Tropical Veterinary Bulletin*. German E. Africa is a long way from Britain, but the possibility of a visitation, as a legacy from the long war, is by no means a remote one.

"In these reports an account is given of the measures taken to prevent the extension of rinderpest in a southward direction from German East Africa into the Nyasaland Protectorate and Northern Rhodesia. The area in which operations were undertaken embraced the region lying just north of the boundary, that is between the northern end of Lake Nyasa and the southern end of Lake Tanganyika and south of the Livingstone range of mountains and Lake Rukwa. Before the arrival of the expedition for the control of the disease under Colonel Gray the Nyasaland and Northern Rhodesian authorities set up a barrier against the rapid spread of the disease southwards by removing all cattle from a belt 10 to 20 miles wide south of the German boundary. A few outbreaks had been located south of the Livingstone range and thus it was resolved to clear the disease from the affected localities by the adoption of simultaneous inoculation methods, and also immunise by the same method all cattle running in a belt of country about 35 miles wide lying north of the German boundary.

Inoculation camps were thus established at various places in order to carry out this plan but at first the disease appeared to show a tendency to die out naturally, and the native cattle of the districts affected appeared to possess a high degree of natural immunity. Moreover, the experience gained at the inoculation camps showed that certain complicating factors of a somewhat serious character had to be reckoned with when working on a large scale, which were not anticipated when the establishment of a belt of immune cattle along the southern border of this territory was originally contemplated. The original scheme was thus abandoned and instead of it measures were taken to guard the New Langenburg district against the introduction of the disease from the other side of the Livingstone range where rinderpest is always more or less enzootic.

The most important complicating factor was the appearance of a large mortality from East Coast fever among the cattle collected at the concentration camps. The mortality from this disease did not begin until the animals had been inoculated with rinderpest blood and serum, and, although the occurrence of ordinary red-water as a complication in outbreaks of rinderpest, where the vitality of the animals has become depressed owing to the inoculation, is well recognised, a similar phenomenon has not yet been proved to take place in the case of East Coast fever. Inoculation experiments were thus carried out in order to elucidate this problem and these 'appeared to show that such complications were likely to occur, although the mortality therefrom might be negligible, most of our animals showing microscopic evidence of the revival of East Coast fever infection by the appearance of Koch's bodies in their blood

whilst undergoing reaction to rinderpest inoculation. None of these died, however, although several control animals inoculated at the same time with rinderpest virus alone and unprotected with serum succumbed after showing during the course of their illness that East Coast fever organisms had again become active.'

These experiments appear to prove that the bad results obtained at one of the concentration camps (Old Utengule) were chiefly due to the movement of cattle susceptible to East Coast fever into an area where that disease was enzootic, for purposes of inoculation, rather than to a serious breakdown in the immunity of animals reared on East Coast fever veld. The records of the German authorities pointed to a very high mortality from East Coast fever among the cattle of this district.

However, as the result of the inoculation rinderpest appeared to have been brought speedily under control. Investigations were then carried out to ascertain the prevalence of rinderpest immediately north of the Livingstone range of mountains and towards Lake Rukwa and determine whether the mountains could serve as an efficient barrier against the southward spread of the disease. Only one small outbreak was detected and this was dealt with by serum inoculation. Elsewhere the disease appeared to have died out.

Unfortunately, however, in the meantime rinderpest re-appeared in the New Langenburg district south of the mountains and the history of the outbreak showed that it had originated owing to the unauthorised movement of cattle while undergoing a reaction subsequent to inoculation, and it assumed serious dimensions owing to the concealment by the natives of the first cases that occurred. This was dealt with by the use of serum alone, but later a number of other outbreaks were detected and work had thus to be resumed by adopting the simultaneous method of inoculation and carefully guarding the area in which operations were undertaken.

Gray then adds a few remarks upon the methods employed where large numbers of cattle had to be inoculated in order to effect economy of time and labour with less fatigue to operators working under a tropical sun. The short crush method adopted by G. Garden was found to answer this purpose best.

'In the short crush method a crush capable of accommodating two animals only is erected, width at bottom being twelve inches, the uprights inclining outwards at an angle which increases the width to two feet six inches, at a height of three feet above the ground. The crush is provided with two sets of slip rails, the one set at the exit from the crush, the other set five feet six inches further back, there being a stout post sunk in the ground in front of the exit, round which the head rope can be hitched in the event of an animal proving refractory. The animals are roped individually by the owner in the kraal connected with the crush, the rope is passed forward along the crush, the head drawn up to the front slip rail and held there by three or four boys, while the slip rails are put in behind it. The inoculators stand one on either side of the crush, and as the animal is secured, they inoculate it simultaneously, brand it, liberate it, and stand ready for the next. With tractable animals, and natives who handle the ropes and bring the animals forward quickly, it has been found possible for four operators working at two crushes, to inoculate over eighteen hundred head in a day with much less effort than would be required to handle a similar number by casting them and walking from one animal to another.'

Over 11,000 cattle were inoculated at the two new stations; the reactions in many cases were well-marked and although fatal cases were observed in which East Coast fever infection had apparently been revived by inoculation the mortality due to inoculation was not more than one-half per cent. Two or three small centres

were found which were stamped out by the use of serum alone.

Unfortunately again, however, rinderpest made its appearance close to the Nyasaland border owing to movement of a couple of calves out of an infected area by a native headman. This fresh focus of infection lay in the centre of a district containing about 20,000 head of cattle and situated around a route of considerable military importance. Mention is made at the close of the report that the work of inoculating all cattle in the belt of country involved by this fresh outbreak had just been completed and the author then entertained the hope that there was a fairly good chance of keeping the disease out of Nyasaland, especially as intercourse with that country had been entirely stopped along the Songwe on account of the presence of bubonic plague at Karongo on the other side of the river.

The work had to be carried out under difficulties owing to the diminished number of personnel due to sickness and military requirements.

SOME CAMEL-FEEDING EXPERIMENTS.\* By H. E. CROSS, M.R.C.V.S., D.V.H., A.S.C., Camel Specialist, Sohawa, Punjab. [Abridged.]

Our knowledge regarding the quantity of fodder that a camel requires is very limited, and no experiments have, so far as I am aware, been carried out to determine the quantity of fodder that a camel requires to keep him in condition. Requests have been frequently made by the military authorities for information regarding the quantity of fodder that should be given to camels.

The only camels available for the purpose of feeding experiments were medium-sized camels suffering from surra (7-14 years old). It would have been much more satisfactory to carry out the experiments with non-surra-infected camels, but this it was not possible to arrange.

The camel can be trained to eat almost anything, and the fodder on which he feeds varies greatly in different parts of the country. The Punjabi camelmen prefer browsing to stall-feeding, and undoubtedly the camel thrives well if sufficient time is allowed, and the browsing is of good quality. When the browsing is poor or sufficient time is not available, fodder such as *missa bhusa* (pea straw), *moth bhusa* (*Phaseolus aconitifolius* straw), and *mung bhusa* (*Phaseolus mungo* straw) and, when in season, green *tara mira* (*Eruca sativa*), green *moth* (*Phaseolus aconitifolius*) and green gram are fed to camels. As a rule the camelman does not feed gram to his camels, he is unable to afford it. *Chitta bhusa* (wheat straw) and *Phaliyat* (*Eruca sativa* stalks) are occasionally fed. Camelmen however do not like wheat straw as a camel fodder, and *Eruca* stalks have probably little nutritive value. Without doubt a camel thrives best on fodder and browsing that he has been accustomed to. A camel brought to a district in which the browsing differs from that to which he has been accustomed, or when stall-fed on fodder that he has not been used to, will fall off in condition; but if he is carefully looked after and only lightly loaded to start with, he quickly becomes accustomed to the change and will rapidly regain his condition.

Experiments regarding the quantity of fodder a camel will eat were carried out with the following:—

- 1 Gram and *missa bhusa*.
- 2 *Missa bhusa* without grain.
- 3 Gram and *moth bhusa*.
- 4 *Moth bhusa* without grain.

- 5 Barley, turnips, and *moth bhusa*.
- 6 Gram and green *tara-mira*.
- 7 Green *sarson* (Indian colza).
- 8 Oat hay and ordinary hay.

The camels got poor browsing during the day: the fodder was given in the evening at about 5 p.m. The quantities are given throughout in pounds.

#### 12 of Gram and *missa bhusa*.

Average = 12 gram and 20.6 *missa bhusa*. The gram was fed first and 40 *missa bhusa* was given to each camel; and the amount left over next morning was weighed.

[Eight camels were used: the test feeding lasted six days. The gram was eaten in every case. The *missa bhusa* eaten per animal varied from 8 to 35 per diem, and the averages from 13 to 27.1 for the six days.]

#### 6 Gram and *missa bhusa*.

Average = 6 gram, 23.1 *missa bhusa*. The gram was fed first and 40 of *missa bhusa* was given to each camel; the amount left over next morning was weighed.

[Eight camels, fed for 25 days; the *bhusa* varied per camel per day from 10 to 35, and the averages for the whole period from 18.4 to 26.1.]

#### *Missa bhusa*.

Average = 24.9 *missa bhusa*. 40 of *missa bhusa* was given to each camel in the evening and the amount left over next morning was weighed.

[Six camels, fed for 10 days. The amount eaten per camel per diem ranged from 16 to 39; and the averages from 22.5 to 27.2.]

#### 4 Gram and *missa bhusa*, two-year-old camels.

Average = 4 gram and 14.7 *missa bhusa*. The gram was fed first and 30 of *missa bhusa* was given to each camel; the amount left over next morning was weighed.

[Three camels (two males, one female), fed for 12 days. The *missa bhusa* per camel per day varied from 6 to 22; the averages for the period were 16.8, 14.9, 12.5 respectively.]

#### 6 gram and *moth bhusa*.

Average = 6 gram and 26.7 *moth bhusa*. The gram was fed first and 50 of *moth bhusa* was given to each camel; the amount left over next morning was weighed.

[Six camels, fed eight days. The *moth bhusa* eaten per camel per day ranged from 18 to 40; the averages for the period 21.25 to 31.5.]

#### *Moth bhusa*.

Average = 29.9 *moth bhusa*. 50 *moth bhusa* was given to each camel, and the amount left over next morning was weighed.

[Nine camels, fed 11 days. *Moth bhusa* eaten per camel per day varied from 12 to 44, the averages for the period 23.5 to 33.8.]

#### 5 Barley, Turnips, and *Moth bhusa*.

Average = 5 barley, 26.6 turnips, and 26.4 *moth bhusa*. The barley was given first, then the turnips, and then the *bhusa*. The camels did not relish the barley; only 20 of turnips were given to each camel the first two days, 30 the other four days; 50 of *moth bhusa* was given to each camel, and the amount left over next morning was weighed.

[Five camels, fed six days. The barley and turnips were cleared, *moth bhusa* varied from 15 to 40 per day, and the averages for the period 24.1 to 28.]

#### 6 Gram and Green *Tara-mira*.

Average = 6 gram and 66.1 green *tara-mira*. The gram was fed first, and 100 of green *tara-mira* was then

\* Bulletin No. 77, 1918, Agricultural Research Institute, Pusa. [Received for publication on 11th May, 1917.]

given to each camel, and the amount left over next morning was weighed.

[Seven camels, fed 24 days. Tara-mira varied from 35 to 86 in daily ration; and the averages for the period from 60.1 to 71.3.]

#### Green Sarson.

Average (four days) = 154.9 green sarson. On the fifth day the faeces became soft, like cow dung.

[Five camels, fed seven days. The ration of 50, 100, 150, given first three days was cleared. Other four days 200 was given. Daily amount varied 115 to 192. Averages for the four days 141 to 168.2.]

#### Oat Hay.

Several camels were fed on oat hay. The oat hay was at first mixed with an equal quantity of missa bhusa, the quantity of the latter being daily reduced until finally only oat hay was given. The camels did not relish it, and the largest quantity eaten was 17. The oat hay, however, was of poor quality.

#### 6 Gram and Hay.

Six camels were starved for one day and then fed on 6 of gram and hay. The amount eaten is given in the following table. For the first three days they were given no grazing, for the remaining three days they were allowed to browse during the day.

Average = 6 gram and 16.2 hay.

[Six camels, fed six days. 35 of hay was given, the daily amount varied from 8 to 31. The averages for the period 12.3 to 19.0.]

Maximum quantity of fodder eaten, in addition to poor browsing. All quantities given in pounds.

- 12 gram and 35 missa bhusa.
- 6 gram and 35 missa bhusa.
- 39 missa bhusa.
- 2 gram and 22 missa bhusa (two-year-old camels).
- 6 gram 40 moth bhusa.
- 45 moth bhusa.
- 5 barley, 30 of turnips, and 40 moth bhusa.
- 6 gram and 86 green tara-mira.
- 192 green sarson.
- 6 gram and 31 hay.

#### Summary.

The average quantity of fodder eaten, in addition to poor browsing, was as follows:—

- 12 gram + 20.6 missa bhusa.
- 6 gram + 23.1 missa bhusa.
- 24.9 missa bhusa.
- 4 gram + 14.7 missa bhusa (two-year-old camels).
- 6 gram + 26.7 moth bhusa.
- 29.9 moth bhusa.
- 5 barley + 26.6 turnips + 26.4 moth bhusa.
- 6 gram + 66.1 green tara-mira.
- 135.4 green sarson.
- 6 gram + 16.2 hay.

#### Conclusions.

Taking into consideration the fact that these experiments were carried out on camels suffering from surra and doing no work, it is probable that healthy camels on hard work would eat very much more. The experiments, however, show that the present Government ration of 16 of a mixture of wheat and missa bhusa per camel is insufficient.

[This experiment appears to be distinctly useful, inasmuch as it gives a general indication of quantities necessary in rationing camels—a very necessary knowledge in dealing with numbers, as in army work—and a definite evidence that the present government allowance shows a discrepancy.

Examining the tables—omitted in our reprint—one cannot help feeling that averages are not a scientific

instrument, but only a rough and ready means of establishing a working hypothesis. This can be very readily seen in the reports of sale-yard results in the Live stock columns of agricultural papers. Taking one of the tables given in the Bulletin, which shows 6 lb gram, 100 lb Tara-mira was fed to 7 camels for a period of 24 days, we get the return of 168 days feeds of tara-mira (the gram was always cleared) the lowest of which was 35 and the highest 86 lb. Four of these camels ate on the average 69 to 71 lb daily in the period: the other three about 10 lb less. Of these 168 daily feeds 59 were between 60 and 70, and 63 between 70 and 80 lb—that is 122 of the 168 were between 60 and 80 lb, and from 56 to 60 lb there were another 16. So that the average given (66.1 lb) is rather under than over: or to put it another way, the smaller feeds have pulled down the average of three-fourths of the feeds recorded in this particular experiment.]

#### Special (Veterinary) Tribunal.

As we go to press, intimation is to hand, by courtesy of the Secretary L.G.B., that the following gentlemen have been appointed a Special Tribunal (Veterinary Tribunal) for dealing with any application on and after 28th August:—F. W. Garnett, G. A. Banham, Hugh Begg, O. Charnock Bradley, J. Clarkson, H. J. Dawes, Sir J. M'Fadyean, W. J. Mulvey, S. H. Slocock, J. Willett, P. Wilson, W. Woods.

#### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Aug. 15.

#### REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Lieuts. to be temp. Capts.:—W. L. Sinton, G. McElligott (Aug. 1).

To be temp. Lts.:—B. C. Flook (July 24); J. McAllan (late Sec. Lt. Gordon Highrs., T.F.) (July 30).

Aug. 19.

Lt.-Col. H. J. Axe, D.S.O., having attained the age limit, is placed on ret. pay (Aug. 20).

Temp. Lts. to be temp. Capts.:—R. W. M. Mettam, T. Hodgins (Aug. 1); T. F. Arnold, J. B. Garside, T. Grahame (Aug. 6).

To be temp. Lt.:—S. G. P. L. Richardson (Aug. 2).

Aug. 20.

To be temp. Capt.:—J. Forrest, late temp. Capt. S. Afr. Vety. Corps (July 20, sen. Jan. 8, 1917).

To be temp. Lt.:—J. Judge (July 24).

To be temp. Hon. Lt.:—L. Linzell (Aug. 1).

#### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Aug. 15.

Capt. (actg. Maj.) H. McVean relinquishes the actg. rank of Maj. on ceasing to comd. a Veterinary Hosp. (June 30).

#### CANADIAN A.V.C.

Aug. 20.

To be temp. Lt.:—Sgt. T. H. Hungerford, 100823 (Aug. 3).

Temp. Capt. to be temp. Maj.:—W. G. Stedman (Mar. 22).

To be temp. Capt.:—Gnr. J. D. Macdonald, 2557453 (Aug. 6).

The following casualties are reported:—

ACCIDENTALLY KILLED—Capt. W. A. Morrin, attd. R.G.A.

DIED OF WOUNDS—Maj. C. B. Seelenmeyer, Aust. A.V.C.



### New Forest Ponies.

It is a great characteristic of the New Forest pony to be always gay and on the alert; they are generally extremely good-tempered, and very seldom do you come across a sulky pony. It is a rare thing to get business and fun together: in the New Forest it is possible to get them combined by being a breeder of ponies. October, November and December are the months when the rounding-up of the suckers, yearlings, and other ponies takes place, and the agisters are busy during this part of the year tail marking.

The suckers more especially are sent to Brockenhurst annual sale of ponies in October, Martin's Town Fair in Dorsetshire in mid-November, or at Ringwood in December, or as yearlings eight months later to Lyndhurst Fair, or Bridford Fair in August. The rounding-up is as good as a day's hunting, if you have a wild pony and have a forty or fifty minutes' gallop and sit down in your saddle and go. Commoners, four or five together, arrange with the agister in their district to have a day's rounding-up.

The meet is arranged—and on arriving another meet is arranged; all take a beat and hunt for ponies in their haunt. If ponies are found and are quiet, the commoners still go to the second meeting-place, and it is then arranged where to drive ponies in some forest pounds or farm.

If on finding ponies, and they are wild and gallop off, the funder "Halloos," and the remainder come to it, and ponies are driven in shape of a V, one behind and two on each side if five are out.

The suckers are haltered, and two, as a rule, are tied together, and you might meet half-a-dozen being driven home in this way after a good day. The more up-to-date way is to take colts back in wagons and carts, owing to the danger of motor-cars, especially at night. Mares that are haunted—well, their stock of mares—are generally saved, branded, and tail-marked by the agister. The good horse colts are kept for entires, and in April about 160 entries are shown at Lyndhurst in four classes—viz., yearlings, two-year-olds, three-year-olds, four-year-olds, and upwards. The Board of Agriculture has supported the show by giving ten premiums in class for four-year-olds and upwards. Three challenge cups are given, one in four-year-old and upwards, by Sir Edward Hulse, which has been won for the last three years and was won outright in 1915 by Mr. S. Barrow, Gore Farm, New Milton, Hants. This pony is a pure Forester, and has been the best pony that has competed for the past three years. The Cecil challenge cup is given by the late Lord Arthur Cecil's two sons—Mr. A. W. Cecil and Major R. Cecil—for four-year-olds, and the Boldre challenge cup is given by Mr. F. Perkins, M.P., for three-year-olds. Lady A. Cecil gives two special prizes, and the National Pony Society four silver medals, one for each class.

As an encouragement, cups are very much needed for two-year-old and yearling, and the competition in these classes would be greater. Many farmers in the counties of England do not realise the good a pony will do to eat off the rough grass where cow stock have been grazing, besides being a good investment. Ponies going away on good pasture will get to 14 hands. A mare that was bred from a Forest mare above 13 h. 3 in., and the sire a thoroughbred horse, grew to the height of 15 hands, and won the open jumping class at Burley in August, 1914, and two days after mobilised and had twelve months' work with a cavalry regiment.

There is not the slightest doubt that for hardness and durability, a military horse can be bred from a New Forest pony if good keep is provided.

T. STOVOLD,  
Hon. Sec., New Forest Pony Assn.

Live Stock Journal.

### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

David Brown, Kilwinning	£1	1	0
W. A. Dykins, Capt. S.A.V.C.	1	1	0
Edward Fern, Cape Town	1	1	0
H. A. MacCormack, London	1	1	0
G. C. Hooper Sharpe, M.C., Capt. A.V.C.	1	1	0
T. B. Revington, Capt. S.A.V.C. (1913,'18)	2	2	0
Previously acknowledged	959	2	11
	£966	9	11

### OBITUARY.

LEONARD BAKER COLE, Capt. A.V.C.

Graduated, Lond: Dec., 1907.

Capt. Cole died on active service.

### A Vegetable Milk.

Some of our readers may remember that this suggestion of a milk substitute from soya beans was noticed in our pages some 8 or 10 years ago—possibly more. The idea did not materialize, and so far as we know, nothing has since been heard of it. The following appeared in *The Lancet* not long since, "From a correspondent." It remains to be seen whether present conditions will result in the use for food purposes of some of the "hundreds of thousands of tons imported."

"In these days of agalactia any reasonable substitute for milk is certain of a welcome, so that particular interest attaches to the soy bean, an alimentary plant grown on a very large scale in China, and imported into this country by hundreds of thousands of tons annually for the sake of the oil it contains, which is utilised in the manufacture of soap, margarine, etc. More interesting from the alimentary point of view is the fact that it can be made to yield a substitute for milk, which in respect of appearance and composition is wellnigh indistinguishable therefrom. The process is simple. Five ounces of the bean are soaked overnight in a quart of cold water; it is then coarsely ground, mixed with the water in which it has been soaking, and filtered through muslin. The result is a milky fluid with a rather strong smell of haricot bean, which disappears after it has been raised to boiling point. Infants take it readily, and, mixed with tea or coffee, the taste is imperceptible. Fresh soy bean milk has a faintly acid reaction; it is quite homogeneous under the microscope, and its physical properties are those of cow's milk; rennet causes it to curdle, lactic acid germs cause it to undergo lactic acid fermentation. When boiled it "rises" like ordinary milk and forms a pellicle on the surface. Its composition is: Casein 3.13 per cent., fats 9.89, but it lacks carbohydrates, a shortcoming which can easily be remedied. As the fatty constituent is an oil, butter cannot be made from soy bean milk, but it can be made to provide cheese (120 grams of the bean yields 184 grams of cheese), and the cheese can be made to resemble any of the popular cheeses in the market; it is merely a question of employing the proper flavouring ferment. Soy-bean milk can be retailed at 3 centimes a litre. The residue, after making milk, is still very rich in alimentary principles, and can be worked up into very palatable "almond" cakes or biscuits. Being practically free from starch, these cakes are specially suited for consumption by diabetics. Roasted, the bean provides a colourable imitation of coffee, just as do barley and oats, to what a satisfactory degree only those who make use of these substitutes will understand." The soy bean and its derivatives are very rich in phosphates,



so that infants reared on the milk are never likely to develop rickets.

Unfortunately the soy bean does not take kindly to the English climate, but it grows freely in China, where it is indigenous, in southern France, in Algeria, and in many parts of the United States, where the plant is used extensively for fodder. There are a number of varieties possessed of special qualities according to climate and the object in view—for example, oil, or milk, or cattle food. A practical idea of its alimentary value may be formed by contrasting the cost of this as compared with other albumins: 100 grams of albumin, at the before-the-war prices, would cost—from egg 1s. 8d., from meat 1s. 4d., from pork 8d., dried peas 3d., and from soy bean 2d. The bean contains four times as much mineral constituents as meat, and is twice as rich in phosphoric acid.

The following shows a comparative analysis:—

	Water.	Nitro. Constnts.	Fats.	Starch.	Cellu- lose.	Ash.
Soy Beans—						
Maxim.	11.30	38.41	14.80	32.11	6.20	5.20
Minim.	10.00	34.85	12.95	96.74	3.60	4.35
Lentils—						
Maxim.	13.50	24.64	1.45	62.45	3.75	3.45
Haricot B.—						
Maxim.	20.40	26.46	2.46	63.23	6.00	5.65
Peas—						
Maxim.	14.20	26.63	1.65	61.10	3.52	3.70
Broad B.—						
Maxim.	15.30	26.51	1.50	58.03	7.86	3.26

#### Losses from tick infestation.

In a short article in *Queensland Agric. J.*, by E. E. D. White, which is held to convey "the opinions of an experienced stockman on an unfenced holding carrying 17,000 cattle and working eight dips" in North Eastern Queensland, it is stated that:—

"The losses among cattle due to ticks (*Margaropus annulatus australis*) when they first appeared in that region 20 years ago amounted to 60 per cent. At present the progeny of those cattle in this badly infested territory have acquired an immunity towards diseases transmissible by ticks, but the losses caused by tick irrita-

tion are not generally realised, and are said to amount to 80 per cent. of the total female cattle branded each year. Although present conditions preclude the idea of eradicating the ticks the author suggests that in view of the loss of condition now caused, the suppression by means of systematic dipping must be regarded as the best possible investment for the cattle owner.

The frequency of dipping must depend on the nature of the country. In certain parts it was found necessary to dip every three weeks throughout the year, while in other areas an occasional dipping suffices. It has often been stated that weak cattle and fattening bullocks should not be dipped but the author's experience indicated that in both cases dipping resulted in improved condition; it was found advisable not to put cattle on the road for at least five days after treatment."

—*Trop. Vet. Bull.*

#### Lanark Farmers and Sheep Diseases.

At a meeting of farmers and others interested in sheep, held in the auction ring, Lanark, at the close of the lamb sale on Tuesday, 13th inst., to hear an address by Prof. Gaiger, Glasgow Veterinary College, on the proposed investigations of sheep diseases, Councillor W. K. Jackson, Symington, who presided, strongly commended the work undertaken. He considered there was great necessity for it, and hoped all interested in sheep would give every assistance they could to make the investigation a success.

Prof. Gaiger explained how the College was preparing to begin investigation on sheep diseases, more particularly those of braxy, louping ill, and trembling. The loss from these, he said, was enormous. They were fitting up a complete bacteriological laboratory in the College for the study of animal diseases. The Government and other Boards had given grants in aid, and the Governors of the College were particularly anxious that the work should not be handicapped for lack of the best equipment. They, therefore, appealed to all farmers and others interested for financial assistance to make the investigations a success.

A Committee representative of the different districts of Lanarkshire was appointed to collect subscriptions, and also arrange to provide the necessary material on which to investigate.—*North British Agriculturist.*

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.		Out-breaks	Slaugh-tered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.											
Week ended Aug. 17	4	4				1	56	108	1	30	21
Corresponding week in											
1917 ...	3	4			1	1	26	36	2	30	15
1916 ...	7	9					15	34	2	80	58
1915 ...	7	9					7	20		59	267
Total for 33 weeks, 1918 ...	167	188			23	65	3386	6432	248	964	389
Corresponding period in											
1917 ...	321	368			18	30	1825	3562	395	1659	715
1916 ...	360	424	1	24	34	89	1657	3758	180	3174	8532
1915 ...	407	467			35	64	1557	1221	159	2871	12853

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Aug. 20, 1918

NOTE.—The figures for the Current Year are approximate only.

‡ Counties affected, animals attacked:—London 1

Excluding outbreaks in army horses.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1573

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VOL. XXXI.

## CONTAGIOUS DISEASES AND THEIR CONTROL.

Perhaps some members have not yet realised how much we shall have to do in controlling scheduled diseases in the coming years. Some of the diseases are already scheduled; others are likely to be as soon as other conditions allow the necessary control. Some are now prevalent in this country; and others, from which we are free at present, may be re-introduced.

Our experience of foot-and-mouth disease has taught us what to expect whenever that affection prevails upon the Continent, and it is likely to do so in the near future. A less widely known and very different disease which may cause us some trouble is epizootic lymphangitis. This condition, though common in some French colonies, was little known in France itself; since hostilities commenced it has assumed disquieting proportions in France, but has happily made little headway among the horses of the British Expeditionary Force. Our only experience of epizootic lymphangitis in England was the appearance of a few cases here as a legacy of the South African war. It was scheduled at that time, and quickly stamped out; and there is no doubt that the same measures will enable us to subdue it again, even if a greater quantity of it should be imported.

Rinderpest, though at present more remote, is a far more serious danger. It seems quite possible that the war might be followed by an incursion of rinderpest from Eastern Europe across the western parts of the Continent, and the German penetration far eastward, and the present Russian disorganization tend to render such an event more probable. If it does reach us, we shall be able to stamp it out as we did decades ago; but to do so would tax all our resources for a time.

Even if we import no foreign diseases, our hands will be sufficiently full with those we have here already. Some temporary increase in glanders is practically certain; and equine mange is likely to be very troublesome for some time. The Tuberculosis Order will certainly be re-introduced, perhaps in a stronger form which will enable more cases to be dealt with; and it is not improbable that other diseases not yet scheduled will be as soon as practicable.

Two, at least, ought to be scheduled—epizootic abortion and John's disease. Both are very largely disseminated by the sale of infected animals, which in many cases is done knowingly. Scheduling, with suitable regulations, would check this, and so would effect no small good. Scheduling would also give the Board that accurate knowledge of the local distribution of the disease which can only be obtained

by compulsory notification. Both these diseases might well have been scheduled some years ago; and no excuse could be offered for delaying to schedule them when we have men available for the necessary control. Neither is likely to be subdued quickly or easily; and that is an additional argument for putting them under control as soon as possible.

At present, we are treating many cases of unscheduled disease of all kinds to which we should never have been called in pre-war days. That will probably continue for a long time, and in addition we shall have far more work in connection with scheduled disease than we have ever had before. A greatly increased and progressively expanding activity in the repression of contagious disease will be one of the most striking features in veterinary life for the next generation. One cause of this will be the growing public attention to preventive medicine.

## DETACHED BONY GROWTH IN A HORSE.

I was very interested in an account of an operation on a detached bony growth in a mare by Mr. J. G. Reynard, M.R.C.V.S., which appears in *The Veterinary Record* of the 25th May, 1918. In connection with this, I would like to record the following case:—

*Subject.* A bay light draught horse, admitted to hospital with a shrapnel wound about eight inches above the base of the tail.

The horse was cast with the intention of extracting the shrapnel. The wound was probed and the sinus found to run downwards and outwards for about ten inches.

On manipulating the region of the thigh about four inches in front of the middle part of the femur, a hard, flat, detached substance, which was freely moveable, could be detected immediately under the skin. We at once concluded that it was a piece of bone detached by the shrapnel, and decided to make an exploratory incision.

On cutting down to it, and starting to dissect it out, we found it was a flat, bony plate about eight or nine inches long, and three to four inches wide. It was firmly adherent, and continuous with the fascia in that part. It had nothing whatever to do with the wound, and in my opinion was simply an ossification of the fascia. As it did not appear to be doing the horse any harm, we decided not to remove it, but to leave it in (we had only dissected the top part of it away from the other tissues).

I regret that I cannot say what was the after-result of this case, as I lost sight of the horse.

It is possible that Mr. Reynard's case might have been of the same nature as the one I have here described, and nothing to do with the old wound he describes, or with the piece of shrapnel.

I would like to know if his case caused any lameness or deformity; apparently it did not do so in my case (it was not detected until the horse was cast for operation).

C. H. G. TOWNSEND, Capt. A.V.C.

*Note by Director of Veterinary Services, B.E.F.:*—

"A similar condition was once witnessed by me in an Australian horse in India."

### HYSTERIA (?) IN A MARE.

The subject was a charger, a brown pony mare with a two-month's old foal at foot, and the history was that whilst eating, and about half way through a feed, she apparently became quite mad and was for periods uncontrollable. The mare was noticed to have been in oestrus about three or four weeks previously.

The condition was characterised by localised anaesthesia, sensory disturbance, tonic spasm of one group of muscles and convulsions.

The mare stood with legs apart, with her head and neck held slightly towards the right side, nose pointing towards the chest, and held in a rigid attitude.

Suddenly there would be a convulsion during which she jumped or bucked forwards and towards the left, at the cessation of which she maintained her former attitude. Periods of excitement alternated with those of quietude at regular intervals, the convulsive stage occupying about thirty seconds, whilst the period of torpor was two or three minutes.

In both stages the head was maintained in the position described, and the breathing was stertorous throughout. The pulse was regular, slightly accelerated, full and hard. The muscles of the left neck, jaw, and throat were hard, tense, and in a condition of tonic spasm, whilst the skin over this area was anaesthetic. The left eye was open and staring with the pupil dilated, and loss of vision. The skin on the right neck was sensitive, whilst the eye and eyelids on the right side were capable of movement, and the sight was unimpaired.

Arecoline gr.  $\frac{3}{4}$  and morphine gr. iii were injected on opposite sides. The arecoline acted in about five minutes and continued for half an hour. During this time the animal defaecated three times and micturated once; a considerable quantity of urine being passed.

From that stage at which salivation commenced there was improvement. A gradual relaxation of the tetanised muscles was noticed, the stertorous breathing disappeared, the left eyelids flickered, the head assumed a more normal appearance and its carriage was better. The mare stood in a more

easy and natural position, and her movements were more co-ordinated. Recovery occurred in three-quarters of an hour.

In attempting to arrive at a diagnosis of this case, the only conclusion I could arrive at was that it might be hysteria. In the early stages I suspected some congestive or inflammatory condition of the brain or meninges, but the symptoms were so transient, recovery so rapid, and the nervous phenomena so varied that I concluded they were unassociated with any organic disease. The fact that the affection occurred three or four weeks after the oestral period, and at a time when its recurrence might be looked for lent weight to this view.

Cases of this nature are apparently uncommon, I have therefore deemed it worthy of record.

R. P. JONES, Capt. S.A.V.C.

### ABSTRACTS FROM FOREIGN JOURNALS.

#### GLANDULAR TUBERCULOSIS WITH ABSCESS FORMATION IN THE OX.

Demé records the following case on account of the rare localisation of the lesions and the dimensions they acquired. This mode of degeneration, according to Nocard and Leclainche, is frequent in the superficial glands. It is also observed in the visceral glands, especially in the posterior mediastinals. In Demé's case, the glands involved were intermuscular—the popliteal and prescapular.

The subject was an ox, four years old. The animal presented a greasiness in the region of the right hip and fluctuation of the superficial part of the thigh. A blister was applied to this point; and some days later an incision released four litres of pus. Despite repeated antiseptic applications, the suppuration could not be arrested. In addition, three months afterwards a swelling was seen in the anterior region of the right shoulder. This decided the owner to send the ox to the slaughter-house.

*Post-mortem.* Caseo-purulent centres were found in the liver, with concomitant alterations of the annexed glands. No particular lesion was found in the mesenteric, bronchial, and retro-pharyngeal glands. The examination of the other deep glands was more fruitful. The right popliteal gland had attained the size of a man's head. On section it appeared crammed with rounded tubercles the size of nuts, in contact with a caseo-purulent liquid. The pus had extended through the subcutaneous connective tissue and the neighbouring intermuscular spaces. The skin was detached over a space the width of two hands.

The right prescapular gland had doubled its volume. It was surrounded by a thick and very resistant fibrous coat. Upon section it presented tubercles identical with those of the popliteal, immersed in pus. Here the suppuration had remained circumscribed.

The majority of the remaining glands showed hæmorrhagic lesions.

Probably the tuberculosis was of intestinal origin.

The liver, attacked early, rapidly became the seat of caseo-purulent centres, this may be attributed to an excessive virulence of the specific bacilli. Generalisation through the blood stream followed.

The carcase was totally condemned.—(*Revista de Higiene y Sanidad Veterinaria*).

W. R. C.

### SPECIAL TRIBUNAL.

#### REGISTERED VETERINARY SURGEONS.

In pursuance of the provisions of Regulation 54 of the Military Service Regulations, 1918, the Local Government Board and the Secretary for Scotland hereby appoint:—

F. W. Garnett, Esq., C.B.E., M.R.C.V.S.  
G. A. Banham, Esq., F.R.C.V.C.  
Hugh Begg, Esq., F.R.C.V.S.  
O. Charnock Bradley, Esq., M.D., D.Sc., CH.B., M.R.C.V.S.  
J. Clarkson, Esq., M.R.C.V.S.  
H. J. Dawes, Esq., F.R.C.V.S.  
Sir John M'Fadyean, LL.D., M.B., C.M., B.Sc., M.R.C.V.S.  
W. J. Mulvey, Esq., F.R.C.V.S.  
S. H. Slocock, Esq., F.R.C.V.S.  
J. Willett, Esq., M.R.C.V.S.  
P. Wilson, Esq., M.R.C.V.S.  
W. Woods, Esq., F.R.C.V.S.

to be a special Tribunal (hereinafter called the Veterinary Tribunal) for the purpose of dealing, on and after the twenty-eighth day of August, 1918, with any application, or request for leave to make an application, for the grant, renewal, variation or withdrawal of a certificate of exemption to, or held by, any man (not being a duly qualified medical practitioner) who is a duly qualified veterinary surgeon registered under the Veterinary Surgeons Act, 1881. F. W. Garnett, Esq., C.B.E., M.R.C.V.S., is hereby appointed to be Chairman of the Veterinary Tribunal.

And the Local Government Board and the Secretary for Scotland direct that the powers, functions and procedure of the Veterinary Tribunal in relation to the matters aforesaid shall be the same as those of an Appeal Tribunal when dealing with applications, or requests for leave to make applications, made direct to them under the Military Service Regulations, 1918, as amended by subsequent Regulations.

Dated this twenty-first day of August, 1918.

W. HAYES FISHER,  
President of the Local Govt. Bd.

ROBERT MUNRO,  
His Majesty's Sec. for Scotland.

An Official Circular issued to Tribunals states:—

"It has been decided that no registered veterinary surgeon shall be taken for military service except, if he is suitable, as a commissioned officer for employment in his professional capacity, subject to the condition that, if a veterinary surgeon is left in civilian employment, he is engaged on such veterinary work as is deemed to be most in the national interests.

"In this respect the position of registered veterinary surgeons is similar to that of registered medical practitioners and registered dentists, and it is important to secure the best distribution of their services."

The address of the Veterinary Tribunal is 10 Red Lion Square, London, W.C.1.

### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

D. A. D. Aitchison, Madras	£1 1 0
S. J. Motton, Capt. A.V.C.	1 1 0
R. G. Saunders, Penzance	1 1 0
John S. Wheatcroft, Rotherham	1 1 0
Previously acknowledged	966 9 11
	£970 13 11

### UNION OF SOUTH AFRICA AGRICULTURAL DEPT. PROFESSIONAL STAFF OF VETERINARY DIVISION, 1916-17.

C. E. Gray, Principal Veterinary Surgeon.

J. D. Borthwick, Assistant P.V.S.

#### Cape Province—R. W. Dixon, Senior V.O., Cape Town.

W. A. Simson,	Queenstown.
A. C. Kirkpatrick,	East London.
J. Nicol	King Williamstown.
W. P. Hamlyn	Komgha.
A. Matthew	Port Elizabeth.
G. T. Henderson	Elliot.
J. H. L. Lyons	Cape Town.
E. Fern	Cape Town.
H. H. Curson	Cape Town (on special duty in Nyassaland).
B. van der Vyver	On active service.
A. Goodall	" "

#### Orange Free State—A. Grist, Sen. V.O., Bloemfontein.

J. R. R. Hamilton	Bloemfontein.
F. M. Skues	Bethlehem.
J. F. Joyce	On active service.
A. McNae	" "

#### Transvaal Province—J. Spreull, Sen. V.O., Pretoria.

J. G. Bush	On active service.
P. Conacher	Johannesburg.
J. Chalmers	Piet Retief.
F. J. Dunning	On active service.
J. I. Edgar	Pietersburg.
R. S. Garraway	Pretoria.
G. Lee	On active service.
G. May	Carolina.
G. McCall	On active service.
H. M. Webb	" "
G. C. Webster	" "
M. Cunningham	" "
G. F. Marais	Volksrust.
W. Jones	Mafeking.
E. T. Clemow	Barberton.
W. A. Dykins	On active service.

#### Natal Province—W. M. Power, Sen. V.O., Maritzburg.

S. H. Ewing	Eshowe.
T. H. Dale	Durban.
C. Tyler	Port Shepstone.
J. L. Webb	Ixopo.
C. H. Wadlow	Maritzburg
A. F. Harber	Mooi River.
F. Hutchinson	Dundee.
A. Brummer	Durban.
S. I. Johnston	On active service.
F. M. Hill	Ladysmith (on special duty in Nyassaland).

#### Transkei—G. W. Freer, Senior V.O., Umtata.

G. H. Melck	Umtata.
R. Paine	Kokstad.
J. J. G. Keppel	On active service.
A. M. Howie	" "

## PARLIAMENTARY.

## TUBERCULIN TEST.

Mr. WRIGHT asked the President of the Local Government Board whether there are now, or if he intends to impose, any restrictions on the possession and use of tuberculin by persons other than members of the Royal College of Veterinary Surgeons, in view of the fact that previous injection of tuberculin within six weeks renders the tuberculin test worthless.

Mr. FISHER: I am not aware of any restrictions at present. I am consulting the Board of Agriculture and Fisheries in regard to the question whether any restrictions should be imposed.

Mr. WRIGHT: Will my right hon. friend say how he proposes to ensure that the consumers, who, under the new grading of milk scheme, pay 3d. or 4d. a gallon extra for Grade A or Grade B, get what they pay for, in the absence of any such restrictions?

Mr. WRIGHT asked the President of the Local Government Board whether he can give any information as to number and ownership of dairy herds which contain no animal which reacts to the tuberculin test.

Mr. FISHER: I have not at present any information on the subject.

## Swine Fever Prosecution.

At the Chelmsford Sessions on Friday, Geoffrey Matthews, Good Easter, was summoned for exposing in the Chelmsford Market, on August 2nd, pigs suspected of swine fever, and also for not giving notice that pigs in his possession were suspected of swine fever. Ralph Matthews, his brother, was summoned for moving, between July 10th and August 10th, at Good Easter, swine into a swine fever infected area without a licence. Both defendants are well-known farmers.

Mr. W. S. Mulvey, veterinary surgeon, Chelmsford, said that on August 2nd he saw 39 store pigs in the market, most of them in a poor condition. Suspecting swine fever, he had them removed, and two days later he slaughtered two, and found them affected. They must have had the disease when they were sent to the market.

Supt. Mules said that Mr. Geoffrey Matthews admitted that the 39 pigs were his, and that they were in a poor condition, but he said he was perfectly sure at the time they were not suffering from swine fever. He attributed their condition to the difficulty in obtaining proper food, and also that he was afraid the attendant had neglected his duty in feeding them. Defendant also told witness that his three sons were in the army, as well as some of his best workmen, and that he could not attend to all the necessary details on the farm.

Mr. D. A. Cragie, Board of Agriculture Inspector, said that any man with experience should have had strong reasons for suspecting disease in these pigs.

Mr. Geoffrey Matthews said there were no signs of disease when the pigs left the farm. The food he had given them was what was advised by the Board of Agriculture, but he was inclined to think it was too strong.

The Mayor (Mr. J. Gowers) said the Justices were unanimously of opinion that Mr. Geoffrey Matthews did not suspect swine fever, and they dismissed the cases against him.

With regard to Mr. R. Matthews, Supt. H. Mules explained that the defendant moved some pigs from one of his farms to another which was an infected area at the time.

Mr. Matthews said that originally all the pigs belonged to one lot; those he moved had been treated by the Board's Inspector, and declared immune from disease. He could have sent them to market, but he put them with the others, intending to keep the lot on his farm until they were killed.

A fine of £2 was imposed, the Justices thinking that this would not have happened had Mr. Matthews read the notice served upon him.—*East Anglian Daily Times*.

## Alleged Cruelty at Brighton.

## WARTS ON A HORSE.—DISMISSED.

At Brighton Borough Bench, on Thursday, 22nd inst., Joseph Nye, of St. James's Mews, was defendant in an adjourned summons for ill-treating a horse by working it in an unfit condition.

The Magistrates on the Bench were Mr. Wallis (in the chair), and Mr. Saunders.

Mr. T. Digby Gates prosecuted on behalf of the Royal Society for the prevention of Cruelty to Animals, and defendant, who pleaded not guilty, was represented by Mr. Doughty, barrister, instructed by Mr. J. C. Buckwell.

P.C. Miller said: On 25th July he was on point duty in Old Steine, when he saw defendant driving a brown gelding attached to a gig. As it passed, witness noticed a number of warts between the hind legs. Two were raw and red, and witness decided to stop defendant when he returned. He did this at 11.30, and then examined the horse. Seeing Inspector Whiting passing by, witness called him, and it was agreed that defendant should drive on to his yard. On arriving there witness found the two warts that he had noticed had been covered over with some black substance. There was also a large wound about the size of a man's hand on the flank. Two other warts that were not bleeding were about half the size of a man's fist; the two that were rubbing together and from which blood was dropping, were about the size of a chicken's and a pigeon's egg respectively. There was blood on both hocks from these warts.

Replying to Mr. Gates, witness said the black substance which he noticed on the warts had been put on them after witness stopped defendant.

Cross-examined, witness said he had previously noticed the horse had warts, but on this occasion they looked red, and so he stopped defendant. Witness was quite convinced it was blood that was coming from the warts. The animal was a spirited one and very fast. There was no trace of lameness and its action was perfectly free both before and behind. The horse showed no signs of nervousness. Witness adhered to his statement that he saw the warts rubbing together, though Mr. Doughty suggested that this was physically impossible.

Inspector Whiting, R.S.P.C.A., testified that the horse was in good bodily condition, but said two of the warts on the hind legs were bleeding. He spoke of an examination by three veterinary surgeons at defendant's yard. In cross-examination, he said the animal was a showy one, with a free action, and there was no sign of distress or pain, although it was rather nervous when examined. He agreed that defendant owned a good many animals, and had always given him every assistance when he had had occasion to go to his yard. If the warts did not rub there would be no cruelty in working the horse. He agreed that the warts without being rubbed, would break down from time to time, and show raw. The fact that the warts looked raw would be no proof that they were rubbing. He knew Mr. Pritchard maintained that the warts did not rub, and agreed that they did not touch when the animal was standing still. Witness advised Mr. Nye not to work the horse, and he had followed the advice.

Mr. Richard Burt, M.R.C.V.S., said he formed the opinion that there was friction between the two warts and that it was cruelty to work the horse while in that state. Mr. Pritchard did not agree that it was cruelty to work the animal.

Cross-examined, witness agreed that if there was no friction between the warts there would be no cruelty.

The warts might appear raw although there had been no friction. It was a handsome animal, and except for this defect a valuable one—worth 100 guineas or more. Witness considered that while the animal was in the condition in which he saw it it should never be taken out of the stable.

By the Bench: Warts were not painful in the ordinary way, except when there was friction.

Mr. W. K. Stuart, M.R.C.V.S., 2 Osborne Villas, Hove, said one of the two warts that were bleeding did not touch on a straight course, but did so in turning. Witness was emphatically of opinion that it was cruelty to work the horse, and was of opinion also that a wound remaining where a wart had been removed by operation would also be painful. In cross-examination, he said that when the warts were on the point of breaking the smallest touch would make them appear raw.

#### THE DEFENCE.

Mr. Doughty suggested that the only points at issue were whether the warts were touching, and whether the horse was driven so as to cause it unnecessary pain. If the Magistrates found that Mr. Nye was driving the horse about for a substantial period of time indifferent as to whether the warts were touching or no he would not resist a conviction, for he thought it would be cruelty. He would, however, ask the Bench to hold that, in fact, the warts were not touching; that the horse had an extremely wide action; and that as the legs crossed the warts in no way touched unless that happened when it turned.

The Court adjourned for luncheon, and during the interval the horse was examined by the Magistrates.

On the resumption, defendant, giving evidence on oath, said he was a jobmaster and livery-stable keeper, in business on his own account for 25 years. He took the horse over from Mr. Allen, who formerly traded as Dupont. It was the subject of warts, and bore marks of having been operated upon. Witness had never let the animal out, and simply used it for his own purposes—very light work. He had attempted to cure the horse of the warts, and it had been constantly under the care of his veterinary surgeon. The warts were all removed in March, 1917; others grew, and were removed in November the same year. In June of this year he noticed the warts were growing again, and mentioned the matter to Mr. Pritchard with a view to another operation. From that time he took the animal out about four times a week, merely in order to drive from one of his yards to another. When witness first saw the horse on the 25th July, the warts were dry and not exuding at all, but when driving down St. James' Street shortly after eleven, he noticed a moisture. Since that date the animal had not been driven out, and the warts were much worse now. The horse was a favourite, and would follow him about. It was a spirited animal, and if the warts rubbed as suggested it would have kicked.

Cross-examined: He denied that there was any blood dropping from the warts on to the hocks, but there was a fluid inside the thighs from them. Witness had never seen the warts touch, even when turning. He denied that the animal had received any treatment since 25th July for the warts beyond cold sponging. He admitted that between the time when he was stopped in Old Steyne and the time when the examination was made at the yard he dabbed the warts with some substance. He thought that was a mistake, and was sorry for it. If the warts touched, witness agreed that it would not be right to work the horse; neither would it be safe.

Mr. Pritchard, M.R.C.V.S., County Council Inspector for the Arundel and Chichester divisions of West Sussex, said he was first consulted about the horse in July, 1916. The animal was the subject of warty, fibrous skin growths in both groins. In March, 1917, he removed 11 such growths. The growths were in the inner layer of

the skin, and as they grew, they ruptured the outer skin, breaking it down. Witness declared that the operation would not be painful unless touched or rubbed. In June last Mr. Nye drew his attention to the warts, which were growing again, and witness advised him that the horse could quite well be worked, but asked him to let him know how it got on. As the result of a thorough test on 25th July, witness was satisfied that the warts did not touch, nor did they do so now, and so long as they did not touch there was no pain and no cruelty. What was alleged to have been blood dropping on to the legs was not blood but an exudation.

Cross-examined, witness considered the animal quite fit to be driven at the present moment. In turning, the warts might touch, but would not drag, and the pressure would not be sufficient to cause chafing.

Mr. J. C. Munby, of Lewes, Veterinary Surgeon and Inspector for the County Council, also gave evidence as to the condition of the horse, and described some tests he made, proving that the warts did not touch.

Cross examined: Occasional friction of the warts would not cause pain. The animal was quite fit to be worked at the present time.

Mr. Jas. Edward Wallis, M.R.C.V.S., Hailsham, County Council Divisional Inspector, who examined the horse on the 27th July, said he actively manipulated the warts, but no signs of sensibility were to be noticed, and the animal also showed no signs of pain or discomfort.

Cross-examined: Witness thought the animal was fit to work, but a lot of turning would not do it much good.

After a lengthy consultation, the Chairman observed that there was a great conflict of evidence in the case, particularly in the evidence of the five veterinary surgeons—such a conflict as to raise doubts in the minds of the Magistrates, of which defendant must, of course, have the benefit. The case would, therefore, be dismissed.—*Sussex Daily News*.

#### STERILISED TUBERCULOUS MEAT.

*The Editor "Meat Trades' Journal."*

Sir,—I am glad to notice from Scotus' letter in your issue of this date that the Glasgow meat trade intend to sterilise this pet scheme of Mr. Trotter's. The proposal is an absurd one, seeing that it would add an infinitesimal and unsatisfactory addition to the food supply. It would turn the public in this country off beef. It might do for the population of Germany, who are cultured up to swallow almost anything. It took some years to get meat producing countries into line on the question of the issue of inspection certificates. What will they think of us if we go back on our former practice. The meat producing States would be justified in withdrawing their certificates of inspection and send, as before, uncertified packages of meat. Everybody knows that the inspection of meat is now conducted on rational lines in almost all centres, and that what is condemned ought not to be sold for human food in any shape or form. A large number of most capable veterinary surgeons are serving in the army. They would, I am sure, condemn the proposal. I trust that Bailie Roderick Scott will succeed, with the help of the meat trade, in putting a stop to the mischievous fad of a few—a very few—members of the veterinary profession.

Aug. 15.

Yours, etc., MERKLANDS.

The foregoing needs little explanation. Most of your readers will have seen references to the subject in the local or agricultural papers during the last few weeks. I have seen other letters in which Mr. Trotter is stated to have entirely changed his views on the matter. I believe that for some years Mr. Trotter has held that



tuberculous meat is unfit for human food, and has shaped his inspection in accordance with that opinion: but I fail to see that because he has expressed himself in favour of sterilizing tuberculous meat for human food, he has therefore gone back on his previous opinions.

It seems to me that several of the men who have written against the procedure are ignorant of the significance of the word sterilize. They don't know that when their Sunday joint is *cooked through* in their own oven it is sterilized. The process is the same but more efficiently carried out in the specially constructed sterilizing chamber.

So far as I know, no one has suggested that flesh which is badly infected with tuberculosis should be dealt with, nor that the process will render such flesh fit for food. But cattle in good condition as to flesh, are sometimes found with badly infected organs; in given conditions much of this flesh can be made safe for food—and there is sufficient evidence that the food so prepared is palatable and contains a good amount of nourishing elements. A substance or fluid is “sterilized” when it has been submitted to such heat that organic life has ceased to exist in it—thus, all living infection is destroyed, and food so prepared cannot be termed injurious, while its nutritive value depends—not upon the process, but upon the quality of the flesh before it is treated.

The risks attached to the installation of a plant are—from the financial side, the question of supply of material for treatment. From the Public Health side the efficient selection of suitable material: and capable management of the apparatus. But, that at a time of scarcity of food, such as will have to be faced for some time to come, men should be allowed to obstruct such a scheme on sentimental grounds alone does not speak well for our intelligence as a nation.

I have nothing to gain or lose on the question—I am not a meat inspector, nor a butcher, nor an engineer with appliances to sell. I am inclined to approach the subject as a consumer—and in that connection I ask myself, Is this sterilized meat likely to be any worse than the “lamb” which has been cold-stored until it is utterly flavourless, and it crumbles instead of cutting under the carving knife, and the fat is tallow? Or is it worse than the mutton which is difficult to cut, and impossible to chew? Or than the beef which has to be stewed twice, and is almost reduced to stock, before it is eatable?

Looking through a paper and discussion on “Meat inspection in rural districts” in *Journal of the Sanitary Institute*, and with a recollection of having read somewhat similar experiences in your pages, Mr. Editor, I was forced to the conclusion that a good many of those concerned in the supply of flesh food in this country—farmers, butchers, and meat salesmen—shirk all responsibility in the quality of the food they supply. Possibly some of your readers may appreciate the following extract from the paper by Dr. W. G. Savage, County M.O.H. Somerset.—Yours, etc.,

SENEX.

“There exists a slaughter-house, situated in the country but at a convenient distance from a railway junction, in connection with which I received definite and specific complaints as to traffic in diseased meat, where the meat went, and even how it was sent. On investigation I found that the slaughter-house was a licensed one, and that the occupier was allowed to use it both as a knackers' slaughter-house and for the slaughter of food for man: a unique opportunity. At my first visit (a surprise one) I found an emaciated tuberculous cow being cut up. The occupier of the premises, with the most engaging frankness, admitted that it was unfit for food, and assured me that no one

had any intention of so using it, and in *proof* thereof he went to the house and produced address labels to a cats' meat man in London, to whom he had intended to consign the meat. There were two other animals waiting to be killed, one being emaciated and probably diseased.

The premises were defective structurally, and I saw to it that the owner was compelled to reconstruct, while of course I insisted that the premises could be licensed for one purpose only. The reconstruction was carried out at very considerable expense, and the premises are now licensed as a knackers' yard; but one is still left wondering at the profitability of the knackers' trade to make the heavy cost worth while.

Another case is even more interesting. Some years ago extensive premises were constructed as a slaughter-house in the heart of the country, but adjacent to a small railway junction. The sanitary inspector of the district lives five miles away. The premises are situated several hundred yards from the road, so that the approach of any inspector or other visitor can readily be seen, while admittance to the actual premises is through a gate which I have always found locked. The slaughtering premises are quite extensive, and structurally very satisfactory and up to date. In the very middle of the premises is a room, again structurally satisfactory, in which sausages were prepared on a large scale. The licensee has been fined once to my knowledge before coming to Somerset for selling diseased meat, while he successfully objected before the rural district council to give an undertaking not to kill meat for both human food and animal food. Any diseased meat found on his premises could therefore without difficulty be designated as animal food. A local newspaper describing the opening of the premises stated, but in quite another connection, ‘The spot is an ideal one for such a business.’

The premises are now unoccupied, as a large batch of diseased meat seized in London was traced back to this place, and the occupier absconded. Meanwhile, I had very considerable difficulty in making clear to the rural district council that there must be a definite undertaking that the premises should be used for one kind of slaughtering only.

One other case. In one of the rural districts, a slaughter-house was licensed, although of rather poor construction. The occupier was known to have been fined, before he came into the county, for dealing in diseased meat, and there were strong reasons for believing, but not sufficient for definite proof, that his accomplishments in this direction, acquired in another county, were not being neglected in ours. The medical officer of health was energetic and keen, and, although no conviction was obtained, things were made uncomfortable, and the occupier migrated to another part of the county. He now occupies premises on the border between two rural districts, and equally inconvenient of access for both inspectors, but with a railway station conveniently adjacent. He has added to his establishment a large dog, with accomplishments not inferior to those of his master; for the advent of any stranger into the lane leading to the slaughter-house at once produces the brute, who blocks the way and growls, conveying the unmistakable impression that long familiarity with meat has blunted his powers of discriminating between the tearing of human and of animal flesh, and a little absence of discretion in advancing will inevitably break down his forbearance. Naturally, you forbear to increase the feeling of tension, and after an interval varying with the needs of the case, the owner appears, and smilingly invites your approval of his premises. I have not been there for several years, so do not know if this description still holds true.

Speaking generally, the slaughter-houses in rural and the small urban areas are fairly satisfactory as regards structure and surroundings, the chief defects being



broken floors, while very few have cement-lined or other form of impervious wells.

As regards their use, a defect, which is much commoner in rural and small urban districts than in large towns, is that in a number of instances they are not kept entirely for their proper purpose. I have, for example, found a load of peat, a mattress, old clothing, bicycles, meat safe with food inside, harness, etc., stored in different slaughter-houses. It is also not very infrequent to find sausage-making and food-pickling conducted in the slaughter-house itself."

### ARMY VETERINARY SERVICE

War Office, Aug. 22.

The King has been pleased to give orders for the following appointments for valuable services rendered in connexion with military operations in German South-West Africa:—

#### ORDER OF THE BRITISH EMPIRE. COMMANDERS (C.B.E.)

\* \* \* \*

Lt.-Col. (Hon. Col.) James Irvine Smith, S.A.V.C.

War Office, Aug. 22.

The King has been pleased to approve of the following rewards for distinguished service in the Field and in connexion with the campaign in German South-West Africa, 1914-15; to date from Jan. 1, 1916:—

#### THE DISTINGUISHED SERVICE ORDER

Maj. J. G. Bush, Maj. G. W. Lee, S.A.V.C.

#### THE MILITARY CROSS.

Capt. P. R. Viljoen, Capt. C. H. Wadlow, S.A.V.C.

War Office, Aug. 22.

The Secretary of State for the Colonies has received from the Governor-General and Commander-in-Chief, Union of South Africa, the following list of officers and other ranks whose names have been brought to notice by General the Rt. Hon. Louis Botha for distinguished service in the field and in connexion with the campaign in German South-West Africa, 1914-15:—

S.A.V.C.—Capt. W. H. Andrews; Maj. J. G. Bush; Capt. F. J. Dunning; Capt. S. Elley; Capt. A. Goodall; Capt. A. M. Howie; Maj. W. Jowett; Maj. G. W. Lee; Capt. D. B. J. McGill; Capt. J. McNeil; Lt.-Col. (and Hon. Col.) J. Irvine Smith.

War Office, Aug. 26

The King has been pleased to approve of the following rewards for distinguished service in connexion with Military Operations in Mesopotamia (Dated June 3, 1918, unless otherwise stated):—

TO BE BREVET MAJOR—(Actg. Maj.) G. Williamson.

#### DISTINGUISHED SERVICE ORDER.

Maj. (actg. Lt.-Col.) A. J. Williams, F.R.C.V.S.

War Office, Aug. 27.

The Secretary of State for War has received the following dispatch:—

General Headquarters,

Mesopotamia Expeditionary Force, April 15, 1918.

Sir,—With reference to the concluding paragraph of my dispatch dated the 15th April, 1918, I have the honour to submit herewith the names of officers serving, or who have served, under my command, whose distinguished and gallant services and devotion to duty I consider deserving of special mention.

I have the honour to be, Sir, your obedient Servant,

W. R. MARSHALL, Lieut.-Gen.,  
Commanding-in-Chief, Mesopotamian  
Expeditionary Force.

Capt. R. M. Bamford; Maj. P. V. Beatty; Temp. Capt. T. Childs; Temp. Capt. R. W. D. C. Easom; Temp. Capt. J. Forbes; Temp. Capt. J. R. Hewer; Maj. J. Nicholas; Maj. (actg. Lt.-Col.) A. J. Williams, F.R.C.V.S.; Capt. (actg. Maj.) G. Williamson; Temp. Capt. N. Wright.

Extracts from *London Gazette*.

WAR OFFICE, WHITEHALL, Aug. 22.

#### REGULAR FORCES. ARMY VETERINARY CORPS.

To be temp. Lts.:—D. P. White, B. S. Parkin, T. J. Hurley, J. A. McCutcheon (Aug. 7); J. T. Alcock (Aug. 8).

Aug. 23.

Temp. Lts. to be temp. Capts.:—C. S. Northcott (Aug. 6); R. E. Bond, J. W. Knowles, K. A. Miles, F. C. Scott (Aug. 8).

Aug. 24.

To be actg. Lt.-Cols. while comdg. Vety Hosps.:—Maj. E. C. Webb, O.B.E., F.R.C.V.S.; Maj. H. E. Gibbs, D.S.O.; Maj. H. T. Ryan, D.S.O., F.R.C.V.S.; Maj. A. Leaning, D.S.O.; Maj. F. C. O'Rorke, C.M.G., F.R.C.V.S.; Maj. H. Kirby, D.S.O.; Maj. (Bt. Lt.-Col.) T. E. Burridge; Maj. K. McL. McKenzie, D.S.O.; Maj. J. S. Nimmo, D.S.O.; Capt. (temp. Maj.) J. R. Hodgkins, D.S.O., F.R.C.V.S.; Capt. (temp. Maj.) W. H. Walker, D.S.O.; Capt. (temp. Maj.) J. O. Andrews, D.S.O.; Capt. (temp. Maj.) V. C. Leckie, D.S.O.; Capt. (temp. Maj.) A. Hodgins, D.S.O. (June 15).

Aug. 26.

To be temp. Lt.:—J. M. Walker, F.R.C.V.S. (Aug. 9).

Aug. 27.

Temp. Capt. J. McBirney resigns his commn. (Aug. 28).

Temp. Lts. to be temp. Capts.:—E. A. Pearce, E. P. Shallcross (Aug. 13); P. W. Bloye, L. P. Pugh, T. J. Lewis (Aug. 14).

To be temp. Lt.:—J. Knox Irvine (Aug. 12).

Temp. Qrmr. and Lt. E. H. Morton is dismissed the service by sentence of a Gen. Court-Martial (July 8).

#### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Aug. 23.

Capt. J. S. Bowden to be actg. Maj. while empld. as D.A.D.V.S. (Mar. 13).

Aug. 24.

Capt. (temp. Maj.) T. D. Young, O.B.E., to be actg. Lt. Col. while comdg. a Vety Hosp. (June 15) (substituted for that which appeared in *Gazette* Aug. 9).

CANADIAN A.V.C.

Aug. 22.

To be temp. Capt.:—Spr. W. C. Batty, 2204332 Aug. 6).

The following casualty is reported:—

WOUNDED—Capt. L. E. L. Taylor, Can. A.V.C.

#### Personal.

Dr. CLEMENT STEPHENSON, veterinary surgeon, Newcastle, has bequeathed £29,000 to public objects, including £5000 to the Royal Veterinary College, London, to found a Clement Stephenson Scholarship, £5000 to the Victoria Veterinary Benevolent Institution, London, to provide gratuities or annuities for deserving widows and families of veterinary surgeons, and £5000 to Armstrong College, Newcastle.

Mr. C. C. NESLING, M.R.C.V.S., of Framlingham, was riding his young chestnut mare on Monday, and had stopped near a field at Coles Green, in which a steam plough was operating, in order to accustom it to the noise of the plough, when it became restive and appeared to lose control of its hind-quarters, causing the rider to slip from its back, and in the kicking and plunging which followed, Mr. Nesling sustained a compound frac-

ture of the left leg. He is reported progressing as well as can be expected.

**FRASER—CLARKE.** On the 17th Aug., at Caterham Congregational Church, by the Rev. Arthur Pringle, assisted by the Rev. W. C. Bourne, Maj. Angus Russell Fraser, M.G.C., youngest son of the late James Fraser, F.R.C.V.S., of St. Albans, and Mrs. Fraser, of Letchworth, to Ida May, youngest daughter of the late James G. Clarke, M.A., J.P., of Caterham, and Mrs. Clarke, of Felixstowe, and Witlesham Hall, Suffolk.

**STEEVENSON—QUIGGIN.** On 24th Aug., at St. Peter's, Formby, by the Rev. Canon M. Linton Smith, D.D., D.S.O., Rector of Winwick, assisted by the Rev. J. Brook Richardson, M.A., Vicar of Holy Trinity, Formby, Maj. J. R. Steevenson, D.S.O., son of the late R. H. Steevenson and Mrs. Steevenson, of Torrington, Devon, to Muriel Theodora, elder daughter of Mr. and Mrs. D. A. Quiggin, of Tower House, Freshfield, Lancs.

At the annual show of the Fettercairn Farmers' Club the display of draught horses was the feature of the day's exhibition. In an entry of eleven mares, Clydesdales, Prof. Dewar, Balbegno, obtained a first with the five-year-old Finella, by Craigie Dorando, out of the Baron Cedric mare, Nora of Balbegno: and her filly foal worthily won in a strong class.

#### INSURANCE CO. FEES.

Dear Sir,—It has just come to my knowledge that veterinary surgeons of a certain county are willing to examine horses for Insurance Companies at the rate of *sixpence* per mile (one way only charged) extra to the examining fee.

Can it be true? Are they aware that there is a war on, or is the circular a huge joke?

Yours, etc., W. V. S.

#### SUPPLY OF VETERINARY SURGEONS FOR THE ARMY.

Sir,—I read with much interest the details of the above in my *Record* of the 24th inst.

I am afraid I must disagree with the two main assertions of our President, *viz.*, (1) "that during the last four years the Council of the R.C.V.S. has used every means in its power to endeavour to secure the services of as many qualified men as possible with the A.V.S." (2) "the still urgent need for qualified V.O. fit for service overseas." I know of a fully qualified veterinary surgeon, unmarried, aged 34, who has studied for the degree of D.V.H., and who is now serving as a private in the R.A.M.C.

He has been employed *overseas* in the capacity of a private in the R.A.M.C. He is now employed in an office engaged in keeping the medical or surgical history sheets of patients passed into and out of the hospital, and his position is what I term "a dignified ward clerk."

His name is on the Register R.C.V.S.

Some considerable time ago he applied to his C.O. for the C.O.'s sanction for him (the V.S.) to apply for his commission in the A.V.S. He is still a private in the R.A.M.C.

If the President of the R.C.V.S. or the D.G. of A.V.S. desire proof of all that I have stated, I should in strict confidence be pleased to transmit the fullest particulars.

"JOSEPH BINDLE."

Aged 38, married, and passed Class A; and ready to answer the call when the Tribunal desires my presence.

I enclose my name and address.

#### VETERINARY SURGEONS AND IRISH CONSCRIPTION.

When the Government stops playing the fool and applies conscription to Ireland, the above department ought to have a fine capture. The South of Ireland is full of them.

Aug. 26.

"THE PROMISED LAND."

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
GR. BRITAIN.											
Week ended Aug. 24	2	5					40	83	1	17	8
Corresponding week in											
1917 ...	1	2				2	22	28		26	17
1916 ...	6	11			1	1	22	31	2	59	57
1915 ...	5	5					16	26		65	301
Total for 34 weeks, 1918 ...	169	194			23	65	3426	6515	249	931	397
Corresponding period in											
1917 ...	322	370			18	32	1847	3590	395	1685	732
1916 ...	366	435	1	24	35	90	1679	3789	182	3233	8589
1915 ...	412	472			35	64	1573	1247	159	2936	13154

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Aug. 27, 1918

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IR LAND. Week ended Aug. 17		...	...	...	...	...	...	Outbreaks	...	...	...
		...	...	...	...	...	...	...	5	...	...
Corresponding Week in		...	...	...	...	...	...	...	...	...	...
1917 ...		...	...	...	...	...	...	2	5	4	29
1916 ...		...	...	...	...	...	...	1	5	11	12
1915 ...		...	...	...	...	...	...	3	5	5	23
Total for 33 weeks, 1918		...	2	2	...	...	...	86	198	17	57
Corresponding period in		...	...	...	...	...	...	...	...	...	...
1917 ...		...	3	5	...	...	1	36	253	169	1031
1916 ...		...	3	7	...	...	...	46	262	214	1197
1915 ...		...	1	1	...	...	1	49	275	170	949

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Aug. 19, 1918.  
NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1574

SEPTEMBER 7, 1918.

VOL. XXXI.

## VETERINARY FEES.

To-day we print details of an arrangement which is being satisfactorily worked by some practitioners of Derbyshire and Staffordshire, and which deserves consideration by the professional associations and by groups of neighbouring colleagues. The scale of fees given may require alteration to suit the conditions of different districts; and the first advantage of the arrangement is that, being purely local, the minimum fee may not be the weak point it must be in any scale of fees for application throughout the country. Probably it is upon such lines that the question of fees will be most effectively adjusted—by local arrangements amongst neighbouring practitioners, which professional societies might do a great deal to bring about. Another admirable, indeed the essential, point in the plan is that the combined action appears to be complete; and here again the localisation of the method is advantageous. Veterinary Surgeons are not much accustomed to act in combination in these matters; and there are districts in which it will be difficult to attain unity, but there are many others in which it can be effected. In any case, a local combination should be more easily established and more satisfactorily worked than a national one. These colleagues in the Midlands deserve thanks for acquainting the profession with their doings.

## VOLUNTARY SUBSCRIPTIONS.

In 1917, the total voluntary subscriptions received during the year amounted to £960. This year we are doing decidedly better. Last year's figure of £960 was passed during last month; and at the end of the month the published total just exceeded £970. We can thus hope for a substantial increase on last year's total when this year ends; and those who follow the College finances well know the need for it.

Last year, despite the subscription of £960, there was an adverse balance of some £250 at the end of the year, due to the increased loss upon examinations. Had it not been for voluntary subscriptions, the College would have lost £1200 on the year. As it was, the loss was serious enough; but the subscriptions prevented it from assuming ruinous proportions.

This year the losses upon examinations will probably exceed those of 1917; and we may be fairly certain that £1200 will not avert some loss at the end of the year. Some such sum would at least prevent any very serious deficit. To have exceeded last year's total and approached £1000 in the first two-thirds of this year is a good start; but more

ought to be done. Very many members have not yet subscribed; and their duty is clear.

It will be a long time before our Bill can be re-introduced into Parliament with any hope of success; and in the meantime only voluntary subscription can save the R.C.V.S. from bankruptcy. Indeed, had it not been for voluntary subscription, bankruptcy would have come before now, as members of Council have recently acknowledged. The Council delayed long before asking for a voluntary subscription, and only did so as a last resource. It will never be an adequate substitute for the Bill; but, such as it is, we must make the best of it. Those who have not yet subscribed should do so; those who have should try to stimulate others.

## HODGKIN'S DISEASE IN THE DOG.

By WM. PAUER, M.R.C.V.S., Blackwater, Hants.

*Subject.* Spaniel bitch, three to four years old.

*History.* She was usually in excellent condition, and had had no previous illness.

*Symptoms.* My attention was requested to her in May of this year, she then had enlarged submaxillary glands; they were hard, and not painful to the touch, and about the size of a pigeon's egg. Her appetite was good, and they did not appear to inconvenience her in any way.

In June, the pharyngeal and prescapular and superficial inguinal glands became similarly affected, and week by week they increased in size until each was about as big as a walnut. The bitch began to lose flesh, and in August became emaciated. The mesenteric glands could then be felt through the abdominal walls as large as a hen's egg. Pneumonia supervened, and she was destroyed.

*Treatment* consisted of daily application of Tinct. iodi. to the glands, and 2 grs. of Pot. iodide internally twice daily.

*P.M.* All the external and internal glands, including the prepectoral, bronchial and mesenteric, presented a similar appearance, being greatly enlarged and firm to the touch, and containing a thick, milky-looking fluid. Liver was apparently in a state of fatty degeneration and lungs showed recent congestion.

*Remarks.* As I had not previously met with this condition, I sent the viscera to the R.V.C. for examination, and Mr. Edwards, B.Sc., M.R.C.V.S., kindly reported that the disease was Hodgkin's Disease, in which there is marked hyperplasia of all the lymphatic tissues of the body, and that the cause of the condition has not hitherto been discovered.

## LAMINITIS—A QUICK RECOVERY.

One evening I was called to a cart mare which had just returned from an eighteen-mile road journey. I found her suffering from acute laminitis of the fore feet. I gave her a 7 dr. physic ball, and a subcutaneous injection containing  $1\frac{1}{2}$  gr. arecoline. I had her shoes removed and her feet placed in cold bran poultices, and left instructions that her feet be well doused with cold water throughout the night. Next morning the mare was almost sound, and made a good recovery.

J. M. WHYTE, M.R.C.V.S.

Tenbury, Sept. 1st.

## ABSTRACTS FROM FOREIGN JOURNALS.

## CATHETERISATION OF THE BLADDER IN THE BITCH.

Gago published an article upon this subject in the *Revista de Medicina Veterinaria* for 1915. He claims to have found a technique for catheterising the bladder of the bitch which is more certain and more easy than the ordinary imperfectly described ones. The materials required are a 1 in 1000 solution of potassium permanganate, a lubricant, a vaginal speculum with movable laminae, and a straight metallic catheter. The bitch is fixed upon her back by the four limbs; and an assistant secures her head. The vagina, vulva, and vulvar lips are washed with the potassium permanganate solution. The operator places himself on the right side of the bitch.

The first stage is to insert the fingers of the right hand through the inferior commissure of the vulva in a vertical direction, approximating the meatus to the vulvar aperture as far as possible, and at the same time to introduce the speculum with the left hand. The speculum is then opened within the vagina; and the meatus is easily seen in the boundary of the vaginal and vulvar mucous membrane.

When the meatus is seen, continue holding the speculum with the left hand, and withdraw the right hand to take up and introduce the lubricated catheter into the meatus.

The catheter is then passed some two or three centimetres (= about from  $\frac{1}{4}$  in. to  $1\frac{1}{2}$  in.), and withdraw the speculum. Nothing now remains to be done but to go on introducing the catheter till the urine is seen issuing.

Gago says that this technique, alike from the position and immobility of the animal, the position of the operator, and the illumination of the region, is very advantageous for different operations and for the introduction of a cystoscope. To avoid movements in very sensitive animals, a vulvo-vaginal anaesthesia should be obtained by means of a 2% solution of novocaine. This is done by pressing the vulvar lips together till only a very small aperture remains in the superior commissure, and passing the point of the syringe containing the solution through this orifice.—(*Revista de Higiene y Sanidad Veterinaria*).

## INTRAVENOUS INJECTIONS OF COLLOIDAL SULPHUR IN ACUTE ARTICULAR RHEUMATISM.

Lœper and Vahram made a communication upon this subject to the Société médicale des hôpitaux in 1915. Their observations were made upon seventeen human patients attacked by acute rheumatism of varying gravity, to whom colloidal sulphur was administered by the intravenous route.

The sulphur was administered in doses varying from 1 c.c. to 3 c.c., and was very well supported by all the patients. The treatment always produced from the day of the injection, and sometimes two hours after injection, a notable relief from pain. In addition, after a more or less sharp reaction, the temperature always became lower than it had been previous to the injection.

In benign cases recovery was obtained after one or two injections. In more serious cases four or five injections were required; and one grave case received eight or ten injections before recovery took place.

The pain diminished in the first place, and the inflammation afterwards. The authors were also able to see the gradual disappearance of a pleural calefaction and of a rheumatic pulmonary congestion; also that of an albuminuria which salicylate treatment had failed to cure. They never noticed cardiac complications, or any new attack in a previously infected valve.

The authors advise that injection into the veins should be practised whenever possible, commencing with small doses of 0.5 c.c., and increasing the dose daily until 2 c.c. is reached.—(*Revista de Higiene y Sanidad Veterinaria*).

## THE HÆMOCONIAS.

J. Maynar contributed an account of these imperfectly understood bodies to the *Treballs de la Societat Biologia* for 1916. Müller, of Vienna, describes under the name of hæmoconias some colourless particles, very refractile, less than a micron in diameter, and animated by Brownian movements, which are encountered normally in the blood serum. Their size renders them visible by an ordinary microscope provided with a good objective; but they are much more easily seen when a dark ground condenser is employed. Nothing certain is known of their genesis; but their aspect and the circumstances of their appearance suggest that they are allied to the fats, or, more correctly, lipoids.

Müller considers the hæmoconias to be constant elements in the blood, never absent in healthy individuals, although variable in quantity. He describes them as brilliant spherical bodies of a maximum diameter of one micron, colourless and very refractile. They are not retained by the net of fibrin, and are less dense than this and than the blood serum. They are not soluble either in acetic acid or in ether.

Stokes and Weggefath have noted the variety in size which hæmoconias present, and affirm that they augment in subjects who have ingested toxic

or alcoholic drinks. According to these authors, the hæmoconias have their origin in the disintegration of the eosinophile and neutrophile polynuclear leucocytes. Müller, on the contrary, believes that they are elements preformed in the blood.

Neumann has observed augmentation of the hæmoconias after the ingestion of fat, and has seen that this phenomenon is slower in old subjects, and slow or absent in diseases of the digestive tube or organs concerned with the digestion of fat.

Léva considers that the number of hæmoconias depends upon the quantity and kinds of fat ingested.

Agnaud and Jeantet state that they have seen plasmas destitute of hæmoconias. They believe that these bodies have very diverse sources of origin.

Cottin believes that the hæmoconias have a double origin, the majority being derived from fats, while a certain number are intraleucocytary in origin. He thinks that the examination of the hæmoconias may help in the diagnosis of certain diseases of the digestive tube.

Lemierre and Brulé have recently carried out interesting studies upon the importance of the presence of hæmoconias and the determination of their quantity. They have reached conclusions analogous to those of Cottin.

In modern works on physiology, little or no importance is attached to these bodies.—(*Revista de Higiene y Sanidad Pecuarias*).

W. R. C.

THE BEARINGS OF MARSHALL HALL'S DISCOVERIES ON ORTHOPÆDIC PRACTICE. By PROF. ARTHUR KEITH, M.D., F.R.S., Conservator of the Museum.

[The fifth of a Series of Lectures on the Anatomical and Physiological Principles underlying the Treatment of Injuries to Muscles, Bones, and Joints. Given at the Royal College of Surgeons of England, November-December, 1917.]

When Marshall Hall first announced his discovery of reflexaction, at a November meeting of the Zoological Society of London in 1832, he was a man of 42, a consulting physician with a considerable practice in London. He was born of a Saxon Midland stock—with an infusion of that hybrid strain which reached England through Normandy. His father was a cotton spinner and bleacher near Nottingham, the first in England to use chlorine for bleaching cotton. Marshall, at the age of 15, was apprenticed to a chemist or druggist in Newark, but in 1809, four years later, he became a medical student at Edinburgh, where he spent five years, three as a student and two as a resident in the infirmary. After two years as a physician in Bridgwater and eight in Nottingham, he settled in London in 1826.

In the course of experiments on the circulation in capillaries he made a chance observation which directed his attention to the nature of the functions of the spinal cord. He had cut off the tail of a salamander, and happening to touch its skin observed that there was a quick movement in response. That response Marshall's predecessors had often seen happen, but it immediately excited his attention because it was taught in his time that a muscle could be stimulated to action in three ways only—either by touching or stimulating it directly, or by stimulating the nerve, or by a volitional stimulus from the brain. He knew that the movement he had

evoked in the salamander's tail was due to none of these three causes; there must be a fourth way of calling muscles into action, and, as was his wont with exceptional cases, he followed up the clue. He destroyed the part of the spinal cord which lay in the detached tail, and found, on touching the skin, no movement could be elicited by touching the skin. He thus was led to suspect that in the spinal cord there resides a power, or mechanism, for the production of such movements as he had witnessed in the salamander's tail. To test his guess he took a snake and cut its spinal cord across, just behind the head, thus separating the brain, the recognised centre of muscular machinery, from the body. The snake remained perfectly still until he touched it, or a puff of wind struck it, or until the table was struck on which it lay, then the snake moved and kept moving until he wrapped it in cotton-wool and thus brought it to a standstill by protecting it from all external stimuli; so soon as it was brought to a standstill and its skin was protected all movements ceased. He then cut off the head of a turtle, and found that on touching the nose, which he knew from Bell's teaching to be a respiratory area, the floor of the mouth executed the respiratory movements which occur in one phase of breathing in turtles, but that when he destroyed the medulla oblongata, he could no longer elicit the respiratory act. He concluded that when the nose was stimulated by touch, a message was carried to the medulla by the fifth nerve, and therein a centre excited another message which was reflected along the motor nerves which control the muscles of the mouth and throat. He pictured in his mind an arc of nerves, and recognised that a stimulus was necessary to produce the reflected or reflex muscular act.

He then exposed the spinal cord of the headless turtle; he touched the spinal cord with a needle: the limbs were thrown into movements; messages, he concluded, must have been excited which had passed up and down the cord and been reflected to the muscles of the limbs. He touched the posterior roots of a fore, and then of a hind limb; the limbs were thrown into movements; he exposed and touched the nerves exposed in the trunk: movements of the limbs and body followed. He touched the skin of the trunk and of the limbs, and with each prick found that the movements evoked by stimulation of the skin were more vigorous than those which followed stimulation of nerves, the nerve roots, or even the cord itself; evidently the skin was the chief end-station for evoking such movements. He noted, in the headless turtle, that the sphincter of the anus retained its normal tonic power and function, but when he destroyed the hinder part of the spinal cord all tone and contraction disappeared from the sphincter. The power or mechanism which regulated the tonus or function of a sphincter was clearly resident in the spinal cord. On pricking the headless turtle he could evoke movements in the limbs; it was also clear that in the spinal cord there was resident a mechanism which could time and regulate the contraction of muscles. And lastly and for our present purpose he made a most important observation—when he removed the spinal cord from the headless turtle the limbs became limp, all tone and degree of contraction disappeared from the muscles of the limbs. That passive contracture of muscles which can work such dire deformities in diseased joints was, on Marshall Hall's showing, to be traced to a disordered function of the spinal cord. The spinal cord regulated the balance of the limb muscles and determined the posture of joints.

Marshall Hall was elected a Fellow of the Royal Society in 1832, and on June 20th, 1833, he read to it his paper "On the reflex function of the medulla oblongata and medulla spinalis," in which he demonstrated the existence in these parts of "a principle of action not hitherto distinguished with sufficient precision." We

have to remember that in 1833 knowledge of the finer structure of the central nervous system was crude and imperfect; yet he pictured an arc system, and grasped the full bearing of his discovery on the realm of medicine and biology. He had an instinct for signpost facts and critical experiments. He saw that the reflex function of the cord and medulla could be exalted—by opium in the frog and strychnine in the mammal; that the manifestation of tetanus and hydrophobia received a rational explanation for the first time. Asthma and epilepsy he also wished to bring within the scope of his reflex law. The excito-motor or reflex function of the spinal cord he found to be more easily excited in the young than in the old; if a teat touched the lips or a finger pressed the palm of a newly-born child, it was grasped by the lips or fingers. The anencephalic human fetus he regarded as a purely reflex mechanism. He observed how all the entrances and passages at the front end of the body, all the muscles and operations connected with the entrance of food and breath, were presided over and manipulated by his systems of reflex arcs. The action of the canals and muscles at the hinder end of the body were regulated by a similar system; defæcation, micturition, parturition were reflexly controlled acts. He found he could elicit such acts by stimulating the mucous linings of these canals; tenesmus, strangury, renal and biliary colic, the localised contractions of the belly wall, and manifestations of sympathetic pains which accompanied diseases or disorders of the intestinal tract were all brought by him within the scope of his new law. He found that reflexes could be set up by stimulation of the dura mater, pleura, and peritoneum; the muscular disturbances which may attend the eruption of teeth or the presence of worms in the rectum could be explained on his newly discovered system of reflex arcs. His conclusions, which must concern us now, relate to the muscles of the limbs; they, too, were controlled by the action of stimuli speeding along his postulated system of reflex arcs. Stimuli which arose in the moving limb were carried to the spinal cord by "incident" or excitator nerves, and were there "reflected" along the outgoing or motor nerves to the muscles. Each contact of the foot with the ground he supposed to call forth a new series of movements. At first he believed that the "tone" of muscles was also a true reflex manifestation, but later he regarded the tone of muscles as a function of the cord, manifested independently of the arrival of peripheral stimuli.

Marshall Hall, as a physician, desired to be Nature's servant—a sincere and outspoken servant if not a very humble one. "I am persuaded," he said, "that a knowledge of the healthy body action is the only foundation for practical medicine and the only remedy for quackery." "A mere practical man is a quack," was one of his aphorisms, yet there never was a man so misconstrued as Marshall Hall was by his contemporaries. The blame is not to be saddled altogether on them, for he had an unconscious art of rousing antagonism, jealousy, and mistrust. We can hardly wonder that John Hilton preferred to think of nerve trunks than of spinal centres as the functional elements which presided over the muscular system of the body. Neither he nor the line of surgeons which followed him perceived that Marshall Hall had given a new basis for the diagnosis of all disordered actions of muscles, and a sure principle in which a rational means of treatment could be based for the recovery of deformed and disabled limbs. Nay, I would go further. The full bearings of Marshall Hall's discoveries, and particularly the significance of the further investigations made by those who have so brilliantly explored the field which he had opened, have not yet been fully utilized by modern orthopædic surgeons. Marshall Hall made it impossible for us to think any

longer in the terms of single muscles, bones, and joints. All of them in the living state are combined into a functional whole by the spinal cord and its system of reflex arcs.—*The Lancet*, Jan. 5, 1918.

### VETERINARY FEES.

To the Editor of "The Veterinary Record."

Dear Sir,—We should like, through the medium of your valuable paper, to give the members of the veterinary profession, an outline of what the veterinary surgeons, in this part of Derbyshire and Staffordshire are doing.

We had a meeting last spring and adopted the following scale. We may say we have had no complaints, and everything has passed off quite satisfactorily.

"We, the undermentioned Veterinary Surgeons, on account of the heavy expenditure incurred in the working of Veterinary practices have found it necessary to amend our fees subject to other local practitioners agreeing to the following arrangement:

Mileage—Minimum 1/3 per mile. Visits—Minimum 3/6 Night Visits—8 p.m. to 6 a.m. 50 % extra.

General Practice—		£	s.	d.
Foaling cases	minimum	1	11	6
Calving cases	"	1	1	0
Removing Cleansing, Mare	"		10	6
" Cow	"		7	6
Milk Fever Inflation	"		10	6
Mileage and Medicines extra.				
Tuberculin Injection	minimum	1	1	0
Anti Abortion	"		2	6
Swine Fever	"		2	6
Taking Blood Samples	"		2	6
Intra-Tracheal Injection	"		1	6

Medicines—Aperient Drinks 1/6, Cleansing Drinks 1/6, Colic Drinks 2/6, Lotion 2/6, Liniment 2/6, Blister 2/6, Cough, Fever, and Worm Powders 4/- per half-dozen, Balls 1/6 ea., Cattle Powders 1/- ea., Inserting Pessaries 2/6 ea., Sale of Pessaries 2/- ea., Minima.

Insurance Fees for examination of each animal 10/6, unless insured by Veterinary Surgeon himself as agent.

Certificates (Fire and Lightning) for Mares and Cattle £1 1s. 0d.; for Sheep 10/6—and Mileage.

Castration and Docking—Castration 15/- each Colt; Docking 5/- each animal.

Castration of Calves 2/6 each, Yearling Bulls 7/6, Bulls, 2 years, 10/6. Minima.

Alex. Levie, Derby.  
J. T. Abell, Derby.  
— King, Derby.  
H. Fairer, Derby.  
Jno. Hawksworth, Etwall.  
F. Aulton, Tutbury.  
J. C. DeVille, Uttoxeter.  
C. J. Barnes, Cheadle.

H. McIntyre, Leek.  
E. Harrison, Bakewell.  
J. B. Howe, Wirksworth.  
R. Murray, Rugeley.  
Michael Sadler,  
Burton-on-Trent.  
Duckwork & Prince,  
Ashbourne.

We also send out our accounts—

Professional Attendance and Medicine  
from

and give no particulars, this has been our practice for some years.

If you think this will in any way assist the different Veterinary Medical Associations, in their endeavours to raise the fees, will you kindly insert in your next issue of *The Veterinary Record*.—We are, yours faithfully,  
DUCKWORTH & PRINCE.

Ashbourne, Derby, Aug. 30.



## BLACK-QUARTER—A QUESTION.

Sir,—I would like to ask through the medium of *The Veterinary Record* if "Black-quarter" has been seen affecting the tongue in cattle. I was recently called to a three-year-old cow. I found her down, unable to get up, and the tongue swollen up to such an extent that it completely filled the mouth; it was quite black; there was also an oedematous swelling under the jaw: temp. normal. The cow was quite all right the day before, and was found as described above in the morning. I examined the blood for anthrax with a negative result. I made an incision into the swelling under the jaw but the blood was quite normal, but on cutting into the tongue black, tarry blood exuded.

I have had a good deal of experience with "black-quarter," but I have never seen the lesion in connection with the tongue before.—Yours faithfully,

W. E. LITTLE, M.R.C.V.S.

## The Supply of Drugs.

The following appreciation of the position of the supply of drugs is taken from the leader columns of *The Lancet*. It is based upon an address by Mr. C. A. Hill, President, at the annual meeting of the British Pharmaceutical Conference.

It remains to be seen if our Government will recognise that, in the matter of manufactures, it is their plain duty to use the powers placed in their hands to protect our own people. Education of the public in these matters proceeds but slowly; and public opinion appears to be the only possible lever to move a Government.

"It is true that all drugs are relatively scarce and many of them very costly at the present time, but those which are absolutely unprocurable can be counted on the fingers of one hand, while it is perhaps safe to say that not a single essential drug has entirely vanished from the shelves of our chemists' shops—a tribute to the power of our Navy. When the market sections of the drug papers speak of a drug as being scarce it must not necessarily be inferred that the drug is being produced only in small quantities; the accurate inference is that the quantity available for distribution to the civil population is greatly reduced; the demand for drugs from the medical services of our own and our Allies' Armies has to be met first. Then, again, it is common knowledge that glycerin is difficult to obtain and that castor oil of the best quality cannot be bought in the open market. They are being produced in quantities far exceeding the pre-war output, but the whole of the production is required for purposes other than those medicinal. Trading vessels are bringing to port those vegetable drugs that cannot be produced in our soil and climate, and that although freights are amazingly high, cargoes much reduced in weight, and ships less frequent and longer in passage. If there is no Turkish opium to be had there is a sufficiency of Persian; if we do not import quinine from Germany we can secure a proportion of the product of the Dutch factories, or we can make quinine here from the cinchona bark of Java.

## SYNTHETIC PRODUCTS.

Germany had secured a practical monopoly of the dye industry, and the synthetic production of drugs was an offshoot of that industry. When war broke out nobody foresaw how long it would last, and nobody appears to have begun at once to make preparations to produce synthetic drugs on a scale adequate to supply the country's needs in the event of a long war. The American chemists were not hampered like our own manufacturers were, and they got to work before us. But the necessity of establishing a fine chemical indus-

try in this country was recognised in due course. In France, Spain, Holland, Japan, and especially in Switzerland, and even in some of our overseas dominions, the drug industry has now been established. The result is that the world has been made able to make itself independent of Germany; and if it can do this in war-time we may be sure that it will be able to do it when labour becomes plentiful and the scarcity of raw materials is no longer a factor to be reckoned with. In his altogether admirable address at the fifty-fifth Annual Meeting of the British Pharmaceutical Conference, Mr. C. A. Hill, the President, mentioned salicylic acid, aspirin, phenacetin, hexamine, and saccharin as substances which are being produced here on a regular scale. He did not extend the list further, but he said flatly, that "whenever a particular substance has been required for a particular purpose, British chemical science plus British chemical industry have not failed to produce it in requisite amount and of requisite purity within a reasonable time."

It is important to add Mr. Hill's proviso that, "questions of cost apart, the thing can be done." Lord Balfour's Committee on Trade after the War recommended that during a specified period British manufacturing chemists should be given very generous protection, so as to encourage them to establish here the synthetic drug industry on a large and permanent basis. This class of drug can and should be produced here at a price which will allow them to be sold for sums approximating to those which they would fetch if imported from abroad.

The President of the British Pharmaceutical Conference in his address did not make the mistake of leading us to think that we had made any remarkable progress in the synthetic drug industry: the manufacture of some of the drugs mentioned has been, as he told the Conference, an industry *ad hoc*. Obviously this will not meet after-war conditions, for the production of synthetic drugs on an economical scale must necessarily be part and parcel of a large and general scheme. It is in the imaginative lay mind that the danger lies, and it is to be hoped that the Exhibition of British Scientific Products now being held at King's College will not have the effect of impressing the public with the belief that so far as the production of drugs is concerned our difficulties are over. It is clearly demonstrated that British manufacturers are thoroughly capable of supplying us with products of a quality as good as, if not better than, those hitherto supplied from foreign sources. Their patriotic enterprise deserves all the encouragement it is possible to give; but it is to the great dye factories, rather than to the druggists, that we must look for the development of the industry: a successful synthetic drug industry depends on a successful dyestuffs industry.

## The antecedents of the Hackney.

Among the many discussions in the Breeders' journals, on the origin of various breeds, the Hackney comes in for a full share. The following is part of a long letter to *Live Stock Journal*, which appeared over the signature of Hugh Brooke.

"If I remember right, when the Hackney of to-day was first boomed he was called the Norfolk Hackney. May I suggest that he was the Pack Horse of the Middle Eastern Counties? When I was a youngster he was little known outside these counties. I remember he was then spoken of as a cob in build, about 14 h. 2 in. or 14 h. 3 h., and a good roadster, with much action. Pack Horse he was in the old days. Hackney is simply a word meaning 'common,' or 'much used,' or, shall I say, the general purpose horse? Now, the general purpose horse of the old days had to carry a great weight as

quickly as possible over heavy roads; such were the half-legged horses I spoke of, and the use of them on the different indigenous breeds of pony in their several districts I submit produced the slightly varying breeds of Pack Horse; the only distinct breed of Pack Horse being that bred in Norfolk—the general purpose nag of that part of the world.”

Another writer, J. P., contributed a long article, a hypothetical etymology of Hackney. From it we have taken the following:—

“The saying is ascribed to Sir G. C. Lewis, the eminent Victorian politician and philologist of the early sixties, that ‘by means of words we can look into the minds and read the thoughts of men who have lived ages ago.’ This statement, hard of belief though it may be to the non-philologist, is nevertheless true, and sets forth in a concise manner the means by which the derivation of any one word is attained. Take the case of ‘Hackney,’ for example. Could we trace this word to its source we should not only be able to tell the people who originally coined the word, but from its signification we should also be able to ascertain the train of thought which led to its formation.

The late Mr. H. F. Euren, the late Sir Walter Gilbey, and a host of other writers have at one time or another tried to penetrate into the hidden mysteries of Hackney history. Not one of these writers was an etymologist; they were content one and all to derive Norman-French *haquenée* from the Latin, *equus* a riding horse, and nag from the Saxon *hnegan*, to neigh, but they got no further forward in their quest of knowledge. Why? Because these so called derivations are not derivations at all.

From whom did the Norman-French derive their word? The French language, as the student knows, is composed of Latin, Gothic, and Celtic words in the order of importance named, and it is a curious fact that the French literary language of to-day comes from the language of the Normans, who consciously or unconsciously had a part in helping to mould the discordant elements into one grand harmonious whole. The Norman-French word ‘*haquenée*,’ as it stands, is a problem which no etymologist has ever been able to solve. No one has been able to determine whether it is a noun, an adjective, or past participle feminine; nothing, in fact, can be made of it; but to the writer it appears to be a corruption or phonetic rendering of another word not yet determined. Take part of the word—‘*haquen*.’ *Haquen* cannot be connected with any Latin or Celtic word, but is found to equal the Modern German *haken*; but, finding it in use in Gothic times, it may fairly be claimed as a Gothic word. In Modern German *haken* signifies a hook, that which is bent or curved in the form of a hook. Asking the question, ‘What is it that the Hackney bends or curves in the form of a hook?’ the man who knows his horse would promptly reply, ‘the knee,’ and knowing that ‘*kniu*’ in Gothic signified ‘knee,’ the full form of the word would stand as *haken-kniu*, and in this compound word the ultimate origin of Hackney stands revealed.

The Goths would appear to have been veritable Hackney enthusiasts, for in whatever country this remarkable people are known to have been there is evidence to show they carried the horse with them.

With this derivation the word Hackney might appear in our English Etymological dictionaries somewhat as follows:—

Hackney: Old English forms, *hackeneie*, *haquenaie*, *hackeneye*, *haquenée*, *haquenée*, *haknay*, *hakney*. [In Gothic, *haken-kniu*, from which all words in connection with Hackney, are derived, viz., Ital. (*h*)*acchine*, *chine*; Span. and Port., *hacanea*; Old French *hequenée*, *haquenée*; Dutch, *hakhenij*. In Gothic, *haken*, to hook or

bend in the form of a hook, and *kniu*=knee. As a term applied to a horse it signifies one that, when in action, bends and rebends the knee in the form of a hook. This action is peculiar to the Hackney, and serves to distinguish it from all other varieties of horses, ancient or modern, the wide world over.]

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

Edwd. H. Brogan, Lusaka, N. Rhodesia	£1	1	0
Hugh C. Jagger, Lt.-Col. A.V.C.	1	1	0
W. F. McConnell, Strabane	1	1	0
T. Parker, Newcastle-on-Tyne	1	1	0
William B. Whigham, Argentine	5	5	0
Previously acknowledged	970	13	11
	£979	17	11

#### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,  
WAR OFFICE, WHITEHALL, Aug. 28.

##### REGULAR FORCES. ARMY VETERINARY CORPS.

Aug. 30.

Temp. Hon. Lt. G. C. R. Thorpe relinquishes his commn. on account of ill-health, and is granted the hon. rank of Lt. (Aug. 19) (substituted for notification in *Gazette* July 29).

Aug. 31.

Temp. Qrmr. and Lt. F. Cranfield relinquishes his commn. on account of ill-health, and is granted the hon. rank of Lt. (June 21) (substituted for notification in *Gazette* June 20).

Temp. Capt. T. A. McClintock is cashiered by sentence of a General Court-martial.

Sept. 3.

To be temp. Lts.:—W. D. John, (Aug. 12); R. L. Creery (Aug. 15).

Sept. 4.

To be temp. Lt.:—T. Kelleher (Aug. 19).

##### HDQRS. OF ADMIN. SERVS. AND DEPTS.

Dep. Asst. Dir. of Vety. Servs.—Temp. Maj. T. C. Evans, M.C., Can. A.V.C., relinquishes his appt. and the actg. rank of Lt.-Col. (June 15).

##### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Sept. 4.

Capt. W. T. Olver relinquishes his commn. on acct. of ill-health, and is granted the hon rank of Capt. (Sept. 5).

The following casualties are reported:—

WOUNDED—Capt. J. A. Rudd, Aust. A.V.C.  
Capt. G. K. Shaw.

#### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND. British Committee.

Chairman:	F. W. Garnett, C.B.E., J.P., M.R.C.V.S.
Hon. Treasrs.:	J. A. W. Dollar, M.R.C.V.S. T. Salusbury Price, M.R.C.V.S.
Hon. Secs.:	Sir Stewart Stockman, M.R.C.V.S. } Fred Bullock, } 10 Red Lion Square, London, W.C.

### Sensibility of Chemical Tests.

No published data appear to be available as to the limit for the usual alkaloidal reactions on the extracts obtained by shaking out an extremely dilute, alkaline, aqueous solution of a free alkaloid with an immiscible solvent. Experiments were made with 200 mls of water, containing various known minute quantities of alkaloids. This was rendered alkaline with 0.5 Gm. of anhydrous sodium carbonate, and shaken out with 10, then 5, mls of chloroform. The bulked chloroform extract was evaporated, and the residue taken up in 1 ml of sulphuric acid 1:10. The acid liquid was divided into three watch-glasses. To one of these a drop of Bouchardat's reagent was added; to the second, a similar quantity of Tanret's reagent; and to third, of Sonnenschein's alkaloidal precipitant. In the first two an almost immediate opalescence or precipitate, and in the third an ultimate amorphous precipitate indicated the presence of an alkaloid. Under these conditions the presence of 0.0001 Gm. of alkaloid in the 200 mls of water, or 1:2,000,000, could be readily detected. This was not the limit of sensibility. With the reagents above named, it was at least three times greater than above indicated. In the case of aconitine, a positive green reaction was obtained from a dilution of 1:4,000,000. For the ordinary detection of alkaloids in water, therefore, reliable results may be obtained by testing as little as 100 mls of the original sample. This has been proved to be the case with aconitine, atropine, brucine, cocaine, colchicine, eserine, pilocarpine, strychnine, veratrine, and conine; in fact, all the commoner toxic vegetable bases. Under these conditions, stagnant water and well water containing putrefying organic matter gave no positive reactions for alkaloids.—L. LAUNOY (*Comptes rendues*.)

The quantity of copper sulphate usually recommended for destroying growths in ponds is one in three millions, a proportion which is said not to destroy fish or render the water dangerous to human life.

### Treatment of Scabies (human) with Chlorine Gas.

It was observed during the training of troops in gas drill, necessitating exposure to the fumes of chlorine, that those infested with scabies were rapidly cured. Experiments were then made directly on cases of this nature, exposing them, protected by gas masks, to an atmosphere containing 1 per mille of chlorine. The best results were obtained when four or more successive exposures to the gas were given, and usually four were sufficient, given on the first, second, fifth, and sixth day. In some cases this treatment caused a very irritable condition of the skin about the scrotum and axillae. This passes off one or two weeks after treatment. The method appears to be certainly much more efficacious than the use of sulphur or sulphurous acid, the hitherto most approved remedy.—Capts. G. H. Clark and H. G. Roper (*B.M.J.*, 1917, 2, 113).

### Aldershot Command Horse Show.

The first of what is hoped will be a long series of annual horse shows was held on Wednesday, 28th ult., at the Army Athletic Ground, Aldershot, under the patronage of the King and the presidency of Brigadier-General Sir Archibald Murray. The proceeds were devoted to the Blue Cross Fund for helping horses of all nationalities at the war, and Wednesday's effort should contribute at least £1000 to that praiseworthy object.

From start to finish the show was an unqualified success; the organisation and ring arrangements perfect, and reflected the greatest credit on Maj. H. F. Faudel-Phillips and his fellow stewards. The attendance was a

magnificent one, the military element largely predominating, although there was a fairly large crowd of civilians and many ladies present. Judging began at 9 a.m., under grey skies and with occasional rain squalls, but by noon an improvement began, and the remainder of the programme was got through in perfect weather.

The entries numbered over 300. Although it is commonly believed that all our best horses are now overseas, one could scarcely credit it in face of the outstanding merit of most of the exhibits. The light and heavy draught horses especially were of high quality, and, in spite of "rations," were turned out in what looked nearly up to pre-war condition. The riding horses were of excellent all-round quality, the chargers being of outstanding merit. The prizes included cups from the King, Lord Lonsdale, the President, Maj. Faudel-Phillips, and the Directors of the International and Richmond Royal Horse Shows. There were some excellent jumping contests, competitors from Australia, New Zealand, and Canada taking part; whilst a tent pegging display and a parade of prize-winners, followed by the presentation of prizes by Lady Murray, brought the day's proceedings to a close. Special praise is due to Captain V. D. S. Williams, the hon. secretary, upon whose shoulders most of the organising work fell, and to whose unwearying efforts the success of the show was due.

Teams and pairs from Witley and Bordon took part. For the Officers Turnout (driven by ladies) Capt. W. K. Townson, A.V.C., took first, with a cup; and Major L. Auchterlonie, A.V.C., was reserve.

### Burley New Forest Pony Show.

The annual show of the Burley and District New Forest Pony and Cattle Society was held in pouring rain, but, in spite of the weather, there was a goodly attendance. Entries were more numerous than last year, and the classes were all filled. The first three events for New Forest mares and foals had a total entry of seventy-five. All the winning ponies had good bone and substance. Taking the class as a whole, the average was good, but there were fewer outstanding ponies than in the past. It was notable that several of the best foals were by those stallions which have won Board of Agriculture premiums.

Good as the classes for mares were, the feature of the show was the fine collection of colts and fillies running with their dams. It was generally agreed that no such show of foals had been seen at Burley, where foal cups and premiums have always been liberally distributed.

In the hack class, Dorothy, the winner, was a charming mare and a good mover. The New Forest ponies are capital riding ponies, and a little more time expended on their schooling would repay owners amply.

The cattle were the best show ever seen at Burley, and the judges spoke highly of the improvement in milking qualities. Heifers were distinctly promising. We now have cow which can forage for itself for five months of the year, and is at the same time a good milker. Prices are rising every week for these cows.

### OBITUARY.

At White House, Brewood, Stafford, on Thursday, Aug. 22nd, the wife of Capt. G. H. Barber, A.V.C., died after a brief illness of five days.

### Personal.

A marriage has been arranged between Maj. Jonathan Scott Bowden, A.V.C. (T.F.), Whitehaven, Cumberland, and Mary (Mollie), the daughter of Mrs. Logan, Lowwood, Windermere.

## The King's Fund for the Disabled. Who will follow His Majesty's lead?

To the Editor.

Sir,—His Majesty the King has been graciously pleased to give not only his name, but also the magnificent sum of £78,000 to the Fund which was recently inaugurated to assist disabled officers and men of the Navy, Army, and Air Force to become useful members of the community again.

We, the Trustees of the Fund, for whom I sign as Chairman, appeal to the humanity, the gratitude, of every one of your readers, man, woman, and child, for a subscription which will help to find a new place in civil life for officers and men of His Majesty's Forces disabled in the War, and for the widows and children of officers and men who have given their lives for us.

"Why doesn't the Government do that?" some readers will ask.

Briefly, a State Pension scale must be hard and fast. Outside that scale there is a great human field which the King's Fund can cover, in which the officer, the man, or the dependant can be put on his or her feet, and given a sound re-establishment in civil life.

A State Scheme must be a classification according to the type; the King's Fund passes beyond classification. and acts, not as a public official, but as a private friend.

The present facts are:—

We are receiving 600 applications a week. 2500 cases have been dealt with thus far. Where the officer or man has been trained by the Ministry of Pensions, or where there is a business given up for War Service, which he can restart, an adequate grant can be made.

The Fund is a Monument of Gratitude. It will cheer our gallant fighters to see that monument rising to £23,000,000—the amount aimed at. So let us, therefore, have the money—and quickly. Urgent cases are waiting.

The King leads off with his great gift of £78,000. Who will follow the King's lead?

Contributions should be sent to

THE KING'S FUND FOR THE DISABLED,  
WESTMINSTER HOUSE, MILLBANK, S.W. 1.

All cheques and postal orders should be crossed.

For the Trustees,  
(Sgd) JOHN HODGE, Chairman.

## Udder Disease in Dairy Stock.

The following appears in the current issue of *The Scottish Farmer*. The first question that suggests itself is—Has Mr. Scott made any effort to get the matter investigated. There is a Veterinary College in Glasgow.

"Sir,—I think it is time something should be done to combat this very serious disease. I understand that it was prevalent among dairy cows in the South of Scotland in May of this year, and now many dairy farms in Lanarkshire are affected. No one seems to have drawn the attention of the Board of Agriculture, veterinary surgeons, or dairy farmers to it.

In my opinion, if something is not done immediately to eradicate this insidious disease, it will mean ruin to many dairy farmers, and that milk will be unobtainable in many districts.—Yours truly,

Auchinlea, Cleland.

JOHN SCOTT.

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.											
Week ended Aug. 31	7	8					45	83	3	14	4
Corresponding week in											
1917 ...	7	7					25	37		22	15
1916 ...	7	8			1	1	13	27	2	63	32
1915 ...	6	6			2	2	8	16	1	56	175
Total for 35 weeks, 1918 ...	176	202			23	65	3471	6596	252	995	401
Corresponding period in											
1917 ...	329	877			18	32	1872	3627	395	1713	747
1916 ...	373	443	1	24	36	91	1692	3816	184	3296	8621
1915 ...	418	478			37	66	1581	1263	160	2992	13329

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Sept. 3, 1918

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND. Week ended July 27	...	...	...	...	...	...	Outbreaks	...	2	3
Corresponding Week in										
1917 ...	...	...	...	...	...	...	3	8	3	17
1916 ...	...	...	...	...	...	...	2	8	6	57
1915 ...	...	...	...	...	...	...	...	2	5	23
Total for 30 weeks, 1918 ...	2	2	...	...	...	...	31	182	14	48
Corresponding period in										
1917 ...	3	5	...	...	1	1	32	239	156	980
1916 ...	3	7	...	...	...	...	43	248	194	1115
1915 ...	1	1	...	...	1	3	44	264	159	898

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, July 29, 1918.  
NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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## ANTISEPTICS.

In human and veterinary surgery alike, hardly anything is more subject to changes of fashion than the choice of antiseptics. Every experienced practitioner can remember antiseptics which, after being introduced with extravagant claims and enjoying considerable vogue for a time, have since fallen into disfavour. A few of these continue to retain a fair though usually fluctuating amount of confidence; the majority fall more or less into disuse.

The truth is that the actions of antiseptics have not yet been studied with sufficient accuracy and thoroughness. Most antiseptics owe their reputations to two recommendations—laboratory reports of their actions upon microbes *in vitro*, and clinical observations upon their effects in wound treatment. Both these methods of observation have serious limitations; and together they form an insufficient criterion of the value of any antiseptic. Tests of an antiseptic action upon a microbe *in vitro* obviously afford little indication of what will happen when the antiseptic and microbe meet in the very different media of the tissues and discharges of a wound. So far as clinical examination of wounds is concerned, there are essential points upon which no clinical examination can give any information of value.

There are factors in wound treatment which, though much worked upon of late years, have not yet received all the study they deserve, and even now are little appreciated by some clinicians. All clinicians know something of the great variety in species and virulence of the bacteria found in wounds; but not all have given sufficient thought to such problems as the chemical changes and modifications of germicidal activity which antiseptics in contact with wound tissues and discharges undergo, the exact action of different antiseptics upon the tissues, and the nature and effects of the chemical compounds which may be formed between the antiseptics and the wound contents. Some clinicians of the old school might regard these questions as "theory"; but they have an exceedingly practical bearing upon the subject, and their practical study is essential to the most efficient wound treatment.

Old methods of studying antiseptics and treating wounds are no longer adequate. It is now known that, in both, we can only approximate the ideal by frequently checking clinical observations by microscopic examinations of the contents of wounds. This, of course, is very often impossible in general practice, and probably always will be. Still, it might be practised more often than it is; and certainly every clinician might become better ac-

quainted with the results of recent studies of antiseptics and wounds than some are. There is perhaps no subject concerning which it is more important that the practitioner should familiarise himself with the most recent research.

## HODGKIN'S DISEASE IN THE DOG.

The case recorded by Mr. Wm. Pauer in last week's issue reminds me of four similar instances encountered in my practice during the last year. The first, a fox terrier six years of age, a very plethoric animal, in which primarily the submaxillary glands were the only structures involved; the swellings were very large, interfering with respiration and causing a good deal of distress. The animal was under treatment for two months; later the axillary glands became involved. Treatment was of no avail, and owing to distress involved in breathing the patient was lethally. Throughout the whole course he maintained his condition. Post-mortem examination was not agreed to, so that the condition of the internal organs could not be demonstrated. This case taught me the futility of attempting treatment, and although I have heard from other practitioners of recoveries I am inclined to doubt the accuracy of the diagnosis.

The second case was a Scottish terrier in which the submaxillary and cervical glands were the centres of disease: general condition of the animal good, but anæmia marked. My former experience proved to me the inadvisability of attempting treatment. This was the second dog the owner informed me she had had affected with this complaint.

The third is a fox terrier, alive to-day, receiving no treatment since the first fortnight of coming to my notice, six months ago. The submaxillary and cervical glands only are involved, as in the preceding case, and the disease so far does not seem to progress. Although anæmic, his general spirits and appetite are good, whilst the owner is contented to keep him alive in the absence of pain.

The fourth and latest case was the most advanced case of the disease I have yet witnessed, it was a mongrel sheep dog. The submaxillary glands were immense, the cervical glands most prominent, the axillary glands and inguinal glands all badly affected, the latter so considerably on one side as to cause marked lameness. The condition otherwise was good, the animal, a fat one, that palpation of the abdomen revealed nothing. This would have been a useful case for demonstration to students. A candid opinion was given and the animal disposed of. A post-mortem examination in this case might

have been effected, but stress of work would not allow of this at the time.

This disease may be of interest to some; personally I hope not to encounter it again. It is most unsatisfactory to have surprise expressed at one's inability to treat the case, and disappointment marked after an extended trial.

GEORGE YATES, F.R.C.V.S.

#### ABOUT PATENT MEDICINES.

It is regrettable that nothing is done to stop the administration of secret remedies to animals.

Some practitioners declare that no such medicines are used by their clients, and that they have succeeded in converting owners to believe that stock remedies supplied by a veterinarian are much more beneficial.

Nothing but legislation that demands the disclosure of the prescriptions on the labels will ever stamp out this evil. Legislation should be sought by the R.C.V.S., at the earliest suitable opportunity; and meanwhile, veterinarians should collect reliable information concerning cases that come under their notice in which patent medicines have proved harmful. The writer of these notes has diligently searched British veterinary literature for clinical records of harm arising from patents, and is astonished that so few cases are recorded.

The owners of patent medicines undoubtedly have commercial success, judging from the large sums of money they leave behind them. But when we consider the goods sold by these people and their utility to stock owners, we are forced to admit that they have been weighed in the balance and found wanting.

Veterinary Colleges that at present carry on practice and shoeing forges in open competition with practitioners and shoeing smiths would be more usefully employed as institutions wherein patent animal medicines were analysed, and where literature dealing with the ascertained analyses could be compiled and issued to the profession.

Quack medicines, in order to sell, require a considerable amount of advertising, and on an average 50 per cent. of their retail prices is expended in advertisement. What would be said of a commercial system in which our daily needs, our books, education, travel and sport cost us various sums whose halves were invariably expended in newspaper and similar advertisements? Only to a race of lunatics would such a thing be possible. The whole business is like a great show ship—vast sails and precious little cargo.

When a quack medicine cures an animal, we may safely assume that the ailment was a simple one, and that recovery would have taken place without medicine. In serious ailments, their administration, besides being dangerous, is extremely absurd.

The stock-owning community is on the whole nearly entirely ignorant of physiology, pathology, and medicine; and the boastful and untruthful claims made on behalf of patent medicines are specifically designed to match that ignorance. If

it be absurd that such people try to doctor animals, it is much more absurd for them to administer drugs of which they know very little.

The efficient action of a medicament depends upon a knowledge of three things:—

- (1) the nature of the complaint;
- (2) the nature of the substance administered;
- (3) the relation of the latter to the former.

Those are the fundamental principles of scientific medicine: they are grounded on reason, sanctioned by common sense, and confirmed by practice. It follows that when such principles are violated, there is a negation of science and reason, and the result is quackery, humbug, absurdity, and the likelihood of a good deal of mischief to the patient. For a person utterly ignorant of veterinary science to diagnose the complaint of an animal and then—absurdity upon absurdity—to administer a secret remedy is so preposterous as to stagger credibility.

It is well for veterinarians in districts where there is a ready sale for these medicines to think over the reasons why such medicines have gained a footing.

It may be owing to the fact that practitioners refuse to supply clients with stock remedies, as the more professional side of life is desired; or perhaps the stock remedies supplied do not fulfil their purpose; or—last but not least—the clients are more impressed with the neat manner in which the quack medicine vendor sends out his goods. There is much in making medicine appear as *medicine*, and with the quack this is a fine art. A black drink may appeal more to a farmer than a colourless solution of a valuable drug.

Frequently patent medicines contain turpentine well disguised with balsam of sulphur.

It is time we had a book on secret veterinary remedies published by the R.C.V.S.

“LAMANCHÁ.”

#### ABSTRACTS FROM FOREIGN JOURNALS.

A METHOD OF DESTROYING THE LARVÆ OF MOSQUITOES. By MM. ED. and E. SERJENT. Presented by M. LAVERAN.

Under Mediterranean climatic conditions, the average length of the life of mosquito larvæ in water till metamorphosed into the perfect winged insect is about three weeks (sixteen to twenty-five days).

The “breeding places” of mosquitoes (*gîtes*) are accumulations of water, sometimes of considerable size; such as lakes, pools, inaccessible marches, and large streams. Only the labour of the engineer that transforms the face of the land suffices to deal with these large breeding places. But sometimes breeding places of very limited size cause infestation of a whole region.

In a number of villages the maintenance of malarial mosquito breeding places is freely kept up by water flowing from small springs, fountains, small reservoirs, washing pools, and irrigation channels. Trickling streamlets grow and widen out to form pools in which the water is constantly



changed without any strong flow, and these form excellent breeding places for the anophelines.

Since commencing our first anti-malarial campaign in 1902, this type of breeding place has been dealt with by the recognised anti-larval measures, such as replacement by masonry and concrete, cleansing, maintenance of repairs, mowing of herbage, application of kerosene, the filling in of cattle hoof tracks, control of waterways and efficient drainage. For the last ten years, in the Tall region of Algiers, we have experimented with success with a new and simpler method of procedure.

It frequently happens that the breeding place is on the course of a single stream. On this we dig two channels which, each for a week in turn, carries all the water. The water is turned into either channel at will by a simple earth dam or a water gate.

Each channel in turn, during its week of use, is the home of egg-laying anophelines and hatching larvæ. Then comes the week without water, when the channel is dried by the heat of the weather—and the larvæ perish.

Each channel is alternately wet and dry for a week at a time, all the labour required being a few strokes of a mattock to break the one dam and rebuild it in the other channel, or double water gates may be used with advantage.

The arrangement may be varied: instead of using two channels, the water may be spread on the surface to the right or left by a series of secondary dams, in such a way that it may be absorbed by the ground or evaporated off within eight days. The water is not turned on to the same ground for some weeks. In this method little earth dams are used.

The method of drying off the breeding place gives excellent results with but very little attention, and expense is considerably reduced. At a very moderate estimate costs are reduced to a tenth of those of the usual anti-larval methods.

*Summary.* In the Mediterranean region, mosquito larvæ require a breeding place that is wet or moist for a period of about three weeks; if this permanent period is broken so that each portion is alternately wet and dry for a week at a time, the larvæ cannot survive.

A mosquito breeding place of a permanent character is not necessarily dangerous. The remedy lies in substituting two alternating ones for the single permanent one.—From *Comptes Rendus*, 165, 14, 436, 7, 1917.

FRAIS. EVELYN PLACE, B.V.SC., M.B.C.V.S.

#### THE TOPOGRAPHICAL DIAGNOSIS OF TRAUMATIC HÆMORRHAGES IN THE SPINAL CORD OF THE HORSE.

Frohner discusses this subject in the *Monatsheft für praktische Tierheilkunde*. The anatomical and topographical diagnosis of these cases is difficult, because the manual investigation is also difficult, and the estimation of the sensibility and of the reflexes is frequently unreliable. Contrary to what is seen in cases of infectious paralysis, cases of traumatic paralysis manifest themselves suddenly.

The mental life is intact, and the paralysis is generally bilateral and is often associated with paralysis of the bladder, rectum, and tail. To diagnose the localisation of the medullary lesion, it is necessary to know the disposition of the spinal motor centres in the distinct medullary segments (the so-called segmentary diagnosis).

A hæmorrhage into the dorsal, lumbar, and sacral medulla produces a motor paralysis of the posterior limbs, commonly in the form of paraplegia, due to disturbance of the nerve centres which animate the dorsal muscles and of those of the lumbar plexus and sacral plexus. If the hæmorrhage is in the cervical medulla, it especially produces paralysis of the anterior limbs (by acting on the nerve centres of the brachial plexus) and, in addition, paralysis of the posterior limbs. Hæmorrhages of the lumbar medulla cause paralysis of the posterior limbs, and at the same time of the bladder and rectum (motor centres in the lumbar medulla). In hæmorrhages of the sacral medulla of the cauda equina, paralysis of the sphincters and of the tail supervenes. Hæmorrhages in the region of the fourth cervical segment cause paralysis of the diaphragm, besides paralysis of the anterior and posterior limbs.

Clinically it is generally impossible to diagnose the precise nature of the anatomical lesion, because there are no certain clinical symptoms of hæmorrhage. Post-mortem examination alone places the existence of hæmorrhage beyond doubt. Fröhner, however, has diagnosed four cases, which he describes in detail. One was cervical, one dorsal, one lumbar, and the fourth sacral.—(*Revista Veterinaria de Espana*).

#### A CUTANEOUS REVULSANT.

Gacon has recommended the following formula for a cutaneous revulsant, saying that the preparation is very energetic and has no drawbacks. The composition is croton oil 4 parts, turpentine 20 parts, 90 p.c. alcohol 120 parts, and sulphuric ether 60 parts. This should be well mixed, and preserved in a hermetically sealed flask. When it is required for use the liquid should be limpid; if it is not so, ether should be added to clarify it.

This formula is employed with success in France in all classes of contusions, and also as a derivative in cases of angina, bronchitis, pneumonia, etc. It is applied by means of a cloth soaked in the liquid. The cloth is passed over all the indicated region in the direction of the hairs, care being taken not to go beyond this region. In a few days a cutaneous eschar is produced, which easily separates.—(*Revista Veterinaria de Espana*).

#### PHYSIOLOGICAL MUSCULAR ALBINISM IN CATTLE.

Chaussé reported his studies of this condition in the *Revue Pratique des Abattoirs* of 1913. Various observers, in the post-mortem inspection in the abattoir of adult cattle which had presented no symptoms of disease to clinical examination, have noted the existence of a generalised muscular degeneration, so pronounced that all the flesh has appeared of the colour of café-au-lait or of a clear salmon colour, giving it a certain resemblance to

veal. None of the authors who have observed this anomaly have studied it deeply; and, therefore, they have interpreted it differently.

Chaussé has carried out an anatomical and histological study of a case of this nature, and has convinced himself that, apart from the muscular decoloration, the carcass presented absolutely nothing abnormal. From this he deduces that these are cases of simple muscular decolourisation, perfectly compatible with an excellent general condition, and that there is no reason for condemning such flesh. The condition must not be confounded with certain muscular decolourisations of degenerative nature, which are generally localised in their distribution. —(*Revista de Higiene y Sanidad Veterinaria*).

#### EQUINE AMYLOID LIVER—RUPTURE.

Fröhner records one of these cases in the *Monatsheft für praktische Tierheilkunde*. It is known that rupture of the parenchyma of the amyloid liver is not rare, especially when the animal is affected with colic. This happened in the case under notice, in which death supervened in half-an-hour from internal hæmorrhage. As icterus was not seen, amyloid liver was not thought of; but rupture of an internal organ was suspected. Rectal exploration revealed the existence of rugosities in the intestinal coils, which might have been alimentary matter, but which really were blood clots. The liver weighed 15 kilogrammes (= about 33 lb.), and was fragile, soft, and grey-brown to yellowish-brown in colour. Its right lobe showed two ruptures. The liver, spleen, and kidneys were all amyloid. There were traces of an old pleuro-pneumonia, indicating a previous attack of pectoral influenza. —(*Revista Veterinaria de Espana*).

W. R. C.

#### VETERINARY EDUCATION IN U.S.A.

Reference has been made in these pages on several occasions to the continued upward progress of the profession in the States. The latest was a note from the May number of *Journal A.V.M.A.*, on the varying grades of professional colleges. The following excerpts are from a discussion on papers at the annual meeting of the A.V.M.A., from the August number of the *Journal*. They bring into notice several difficulties, some of which are not unknown on this side, but which they have to meet *de novo* and under differing conditions.

(Dr. Quitman): "I do not believe it lies within the effort of any veterinary college to turn every man out a specialist in every different branch. Dr. Turner evidently sees the veterinarian only through the army eye, while Dr. Bailey, in his paper, sees the veterinarian only through the eyes of a milk hygienist. It certainly would mean about a seventeen-year course to follow out the ideas of these two gentlemen, if every specialist had the same idea. In human medicine they do not turn out specialists. If a man wants to specialize in human medicine he has to continue his studies after he graduates. I think it is asking too much of a veterinary college whether it be a State university or a private school, to turn out men who are specialists in every different branch.

(Dr. Hoskins): You know in New York State we have nothing to say about the requirements of men entering veterinary schools there. The Board of Regents establish

the requirements for us. They require that they shall be graduates of four years of high school work and shall have seventy-two counts; and I am not yet convinced that high school requirements will solve the difficulty that we have been contending about for a good many years. In all large cities like the City of New York, the high school there does give a very wide latitude of instruction; but I have been disappointed considerably by the fact that many of these men who come to us with high school entrance requirements are still very lacking in the proper knowledge of the fundamentals. I have marked a good many papers in my time, as a member of the State Board, of men who came to the college without the entrance examination, but with the qualifications of high school men. I have been quite disappointed in a reasonable per cent. of those men that they did not write either an intelligent paper nor were they able to write correctly or to express themselves in their papers grammatically. I glory in the address of the President which we listened to this morning, because I always admire the man who preaches the gospel of discontent, since he is sure to get somewhere; while the man who preaches to those who listen to him that they should be contented with their lot does not get very far—in fact has commenced to retrograde.

When men come to us in our veterinary schools in great states like that of New York, or a great city like New York City, they come to us lacking, to my mind, a very essential thing. They come to us without a particle of knowledge of animal industry, with no knowledge of farm life, with no particular love for animals, but too many of them come to us with purely a commercial thought in mind. It is one of the difficult problems to eliminate that from these men's minds, and I have decided that this year, in opening the four years' course at the New York City Veterinary College, from the 5th day of September to the 26th day, we will devote that entire period with the four classes, teaching them and getting into their minds the thought that the field of veterinary medicine is not a commercial one, but is one of service—of service to humanity, of service that will bring them a rich reward in a feeling when they have closed their career that they have been helpful to mankind, that they have done something to lift the burdens off the shoulders of the great masses of people, and done something for what our President has spoken of, a world-wide Christianity.

Another point we might take notice of from our President's address is that we must realise the importance of maintaining our courses in keeping with others—with the courses of engineering and with human medicine. We cannot hope, understand, that the future of any of our men can have the possibilities of engineering that oftentimes brings great fortunes over night, nor the possibilities of human medicine in the great cities where men command as much as \$500 to wait upon the birth of a child on Fifth Avenue, or perhaps on Walnut Street of Philadelphia. Our men are going into a field that only promises perhaps with care and frugality and thrift a competence in old age—not riches or affluence; and we, who are engaged in the teaching of veterinary medicine, we who are trying to lift up veterinary medicine and build it up as we should must take into consideration, in dealing with student bodies, this phase of it.

[Dr. Hoskins has here touched upon three important features of veterinary education. The first concerns the preliminary examination in general education, or matriculation. It appears from the context and from the remarks of men who spoke later that alternative—in some colleges—to the high school certificate is a "general knowledge" exam. by the college. In Britain we have the same deficiencies in writing, in spelling, and in composition, but only in a comparatively small proportion

of the students. But small as that proportion may be, we should be better without it.

The next is an ethical proposition; but it is one that materially affects the attitude of the practitioner to his clients, and reflexly, the attitude of the public towards the profession generally. The men of education and right feeling who have become members of the profession naturally object to be put on a level with the illiterate trickster whose *only* idea is what he can "make" out of his clients. The professional man claims a suitable recompense for his skill and his endeavours on behalf of his patients.

The third consideration is, in a measure, also ethical; and is one that our members have acknowledged and adhered to in keeping up the standard of general education required from intending students.]

(Dr. S. Stewart): In some of the States, as you have heard to-day, a graduate of the veterinary college is granted a licence to practise upon presentation of his graduation certificate or diploma, which is recognised by the State board. In the State of Minnesota they do not recognise anybody's diploma other than to the extent that it makes the holder eligible to enter the examination for a licence to practise. Minnesota differs from any other State board of which I have knowledge, in that they believe it their duty to examine the candidate's basic educational qualifications as well as his scientific qualifications. The fact appears to be that about eighty per cent. of the men who have appeared before that State board in the last two years have failed to pass, largely because of their failure to meet the basic educational requirements as set forth by that board.

State boards have been guilty in some instances of some peculiar, eccentric catch question and they have been guilty of asking or propounding questions on theories that have long ago been exploded.

All that sort of thing can be eliminated if the State examining boards will get together and discuss the features of the examination which it is possible for them to give under the laws of the State under which they are operating. Some of these State boards have very little experience—the State board of Texas has had possibly two years' experience and it is made up of men who never did any teaching, and who have no ideas concerning the work of instruction. They may never have prepared a set of questions and may not know the difficulty of making questions perfectly plain; may know nothing of how to equalise the value of various questions in the various departments, which is a very serious trouble indeed. I believe if it were the province of this body to prepare such sets of questions and offer them as suggestions of what would be proper questions—fair to the student preparing to apply for a licence, and just as fair really in the State of Texas as in the State of Pennsylvania, it would be of very great advantage.

Just one more matter, and that is, whether State examining boards might not develop the students' knowledge by a practical examination as, for instance, if they should require him to pick up a horse's foot and examine the bottom of it and show that he knows how to go about his business; so that they could ascertain whether he could really put a bridle on a horse, or whether he knows about harness and how a double-team harness was put on for instance, so that he would show the examiner by his methods that he knew what auscultation and percussion really means and what might be learned by them.

[Dr. Stewart mentions the preliminary exam. with the condition that this State not only does not admit a diploma granted by another State Board as qualifying to practise in Minnesota, but also examines the candidate's educational qualifications—and apparently the course is justified. The State Boards are open to improvements in several respects; see his remarks on

questions. Though whether his suggestion that questions should be prepared by "this body" (A.V.M.A.) is quite the best way out is open to doubt.

The suggestion of further examination of a practical character is also referred to by other speakers.]

(Dr. Donaldson): In regard to the Minnesota examination board putting up an examination in preliminary education, I assure you some of the answers we get and some of the papers show that it was very necessary. I do not want to be very specific in this, but it is plainly evident that something is needed along that line. Not very long ago I had the 1917 prospectuses that were sent out to me from the different colleges, which tell what their entrance requirements are. Judging from what we get in Minnesota, some of those colleges are not coming up to what they say in their catalogues. There are institutions that are not examining their men properly before they go in. I am not advocating a high school education. As far as I am concerned I do not think it is necessary. I think, however, there ought to be a line drawn as to where a man ought to have education enough any way to understand the language that is being used in the college; and I think he ought to have enough education so as not to come up to the Minnesota State board and spell such words as stomach "s-t-u-m-i-k."

(Dr. S. L. Stewart): Again bringing up the subject of passing examinations, if you will go to the records of the students in the public schools and in the high schools you will find very few good spellers. They are exceedingly poor in spelling and in clear handwriting. I don't know how a veterinary college is going to turn out men who are good spellers and good copywriters unless they have attained these accomplishments in the public and high schools. It is a surprise to see the words that a high school graduate will mis-spell, and it is surprising to know that few people can really write a clear hand and make a correct copy. I think those things ought to be corrected in our public schools and in our high schools.

(Dr. W. E. Stone): Again, I do not believe that the majority of our veterinary faculties grade in the subjects of spelling and writing when they are correcting examination papers. Dr. S. Stewart has referred to the fact that the rapid taking of notes had a tendency to overcome good spelling and writing. I heartily agree with him, because I know that oftentimes in writing examinations I would abbreviate my word or write it regardless of the correct way of spelling, just so that the instructor could make out what I meant. If I had been corrected and a demerit put after such a word, the next time I would not have done that.

I would like to speak of another thing—reciprocity. I would hail the day with much delight when we could have a government board examination. All veterinarians would be glad of one universal board before which all veterinary students could go and take an examination and do away with the State boards entirely; or else have uniform State questions so that if a man registered in the State of Missouri he could pass into the State of Minnesota and practise. If it could be put into practice throughout this country it would be welcomed by all veterinarians and veterinary schools.

The discussion concludes with remarks by Dr. Hoskins. After referring to the mention of the late Rush Shippen Huidekoper, a graduate of Alfort School, in one of the papers preceding the discussion, said that Huidekoper, back in the early eighties, held the idea that men who were going to enter the veterinary profession should have certain training: he had hoped to see a veterinary school at the University of Pennsylvania with the first year of every entering student devoted entirely to determining his aptitude for the profession. He considered that a student ought to know a great deal about animal

life—all about taking care of horses: he would put him in the stable and teach him to use a fork, and the brush and curry comb, and to handle harness and saddle, and to ride. Dr. Hoskins continued: "I do sincerely hope that some such plan may yet emanate from some of our schools." Referring to remarks by Drs. Stewart and Stone, on reciprocity, he said, "I have no doubt that neither of these men are aware of the fact that we have wrestled with that problem for twenty-four long years: but I am glad to see that we are getting nearer to the only possible solution of it under our form of government. I am hopeful that the Federal Government will establish very soon some standards of requirement for the veterinarians acting under the Board of Animal Industry, for the men who are going into the army, into veterinary service, or any other position under our government."

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

A. Blake, Rangoon, Burma (1917, '18	£2	2	0
J. Garvie, Montrose	1	1	0
J. R. Greig, Capt. A.V.C.	1	1	0
T. F. Quirk, I.C.V.D., Rawalpindi, India	1	1	0
A. Smith, Lt.-Col., I.C.V.D., Caccutta	1	1	0
Members of the N. Midland Veterinary Association :—			
T. C. Fletcher, Sheffield	£1	1	0
J. S. Lloyd, „	1	1	0
S. H. Nixon, „	1	1	0
H. Nixon, „	1	1	0
S. E. Sampson, „	1	1	0
H. Thompson, „	1	1	0
		6	6
R. J. Verney, Oxford (1917, '18		2	2
William Watt, Capt. A.V.C.		1	1
Previously acknowledged		979	17 11
		£995	11 11

#### The "Forest Horse" of Hampshire.

The importance of the native pony goes, I think, farther back than that continual inflow of Eastern blood which has been going on from the days of the Roman occupation up to the present day. Spain, Italy, Constantinople, Syria, Baghdad and Morocco have all contributed in almost all periods of our history. During the past twelve years I have been riding or walking about the New Forest examining the ponies, and there has come to me not only the realisation of the great part played in the formation of our ponies by the North African horse in his varieties, but also the belief that this was merely the superstructure, and that the foundations have yet to be discovered. Then I read Prof. Cossar Ewart's contributions to the history of the horse of this country, and it seems to me that in the New Forest, and that far wider forest district which preceded it, there must have been a more ancient race. Gradually I have come to see that the "Forest Horse" is the foundation on which the pony has—in these parts, at all events—been built up. I note the continual reappearance of the long head, the more or less concave outline of the face, the eyes placed rather high up, the size of the chestnuts and the recurrence of ergots, the long narrow nostrils, and the prehensile lips. The Forest ponies are all browsers on trees and shrubs, as well as grazers, and this enables the ponies to live, and sometimes to keep

in good condition, throughout the long winters and our bitter spring winds.

It is these ancestors which give to the ponies their extraordinary hardy constitutions and their quite remarkable soundness. I have never known a Forest-bred pony to fail to pass the Board of Agriculture test. Ponies of other breeds sometimes fail, but hardly ever our native-bred Forest ponies. Then, again, the Forest pony is a jumper not only of power but of resource. There was one well-known pony which could negotiate the most intricate Forest boundary fences and could get over a strand of wire. This ancient Forest breed has great powers of absorbing and assimilating outcrosses. When they met the Eastern horses, with the versatility characteristic of the Arab blood, their good points were assimilated and adopted by the ponies; and I could point out ponies now which have the quality of the Arab and the power and substance of the Highland or other sturdy breeds of Scotch ponies.

I think, from the recurrence of the type of head, the almost invariable chestnuts and ergots, that the foundation here was chiefly "Forest Horse." There was very little Celtic pony, and the type of head of the Celtic pony—square, small, alert—comes, when we find it, which is not very often, from the introduction of Welsh or Dartmoor blood, neither of which races leave much of their own stamp in the Forest. Again, the study of Professor Ewart's writings has left on my mind the impression that the "Forest Horse" was more intelligent and resourceful than either the steppe horse or the horse of the plateau.

One thing I have noted, but I cannot explain, is that in those districts where there has been much Arab blood the chestnuts, as one might expect, either become very small or not found at all, but the head—large, sensible, and from the front view narrow—always reappears. I account for this to myself from the impression I have that the last thing one breeds out is a plain head.—(From a letter by T. F. Dale, Burley, Hants, in *Live Stock Journal*.)

#### Cruelty Charge at Cheltenham.

At Cheltenham Police Court, on Monday, Sept. 2nd, the case in which William J. James, of Blackledge Farm, Leckhampton, was summoned for cruelty to a gelding by working it in an unfit state, and which had been adjourned from a previous court for the purpose of calling expert evidence as to the condition of the animal, was again before the Bench.

The testimony of Prof. G. H. Wooldridge, of the Royal Veterinary College, London, was that the cob was entirely unfit for any work. It was over 20 years old, lame in both fore limbs, and very much bent over on the knees. Bodily, its condition was good, indicating that there was no continuous pain, but any forced extension or flexion of the joints would cause pain, and such movements were inevitable in any work or fast progression. The Professor answered a number of questions put to him by Inspector Jowett, R.S.P.C.A. (by whom he was called), and Mr. Haddock, the Solicitor for defendant.

Mr. J. R. A. Jones, M.R.C.V.S., Gloucester, called by the defence, confirmed evidence given by Mr. Thomas J. Brain, M.R.C.V.S., of Cheltenham, at the previous hearing, contending that the animal, whilst unfortunate in its appearance, suffered no pain, and was quite fit for light work. It was, he admitted, a "most decrepit-looking old animal," but it looked a great deal worse than it really was.

The Bench gave a verdict for the prosecution, and in fining the defendant £3, they also ordered that the horse should be destroyed.—*The Echo*.

# ARMY VETERINARY SERVICE

The following is addendum to the dispatch from Lieut.-Gen. W. R. Marshall, Commander-in-Chief, Mesopotamian Expeditionary Force, which appeared in our issue of Aug. 31 (p. 71). :—

"Owing to the increased area over which this Force operates, to the amount of animal diseases existing in the territories conquered, and to the consequent danger of the animals of the Force becoming infected, it has been found necessary to increase the Veterinary administrative staff and to form extra Veterinary Hospitals. The results are most gratifying, and reflect great credit on this Department."

Extracts from *London Gazette*,  
WAR OFFICE, WHITEHALL, Sept. 6.

## REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Lieuts. to be temp. Capts. :—N. H. MacAlister (Aug. 15); J. J. M. Barry (Aug. 18); G. L. Bradley (Aug. 22).

Sept. 9.

Lt.-Col. (temp. Col.) G. M. Williams, c.m.g., to be temp. Brig.-Gen. while holding the appt. of Dir. of Vety. Servs. (Aug. 11).

Maj. (Bt. Lt.-Col.) J. J. Aitken, d.s.o., to be actg. Lt.-Col. while holding the appt. of Asst. Dir. of Vety. Servs. (June 22).

Temp. Capt. J. H. T. Kenyon relinquishes his commn. on account of ill-health, and is granted the hon. rank of Capt. (Sept. 10).

Sept. 10.

To be temp. Lts. :—B. T. Carmichael, H. W. Graham, B. R. Atmore, O. A. K. Snyder, C. H. Heslop, E. M. Hill, H. N. Howell, J. L. Heffron, J. B. Williams (late temp. Lt. Canadian A.V.C.) (July 24); C. R. Boast (July 25).

Sept. 11.

Temp. Lts. to be temp. Capts. :—R. Gorman (Aug. 24); F. McD. McKenzie (Aug. 26).

To be temp. Lts. :—K. D. Zinck (Aug. 1); S. Anderson, C. A. Ewing (Aug. 21).

## TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Sept. 10.

Lt.-Col. W. Plomley is retired under para. 116, T.F. Regna., with permission to retain his rank and to wear the prescribed uniform (Sept. 11).

## OBITUARY.

THOMAS HENRY DALE, M.R.C.V.S., Durban, Natal.  
Graduated, Edin: Dec., 1889.

Mr. Dale died October, 1917.

WILLIAM MALCOLM REID, M.R.C.V.S., Arbutnott,  
Kincardineshire. Edin: May, 1859.

Death occurred 21st August, 1918, at the age of 82.

## Personal.

COCKBURN—SCRASE. At Nottingham, on the 3rd inst., Capt. Robert Bowes Cockburn, A.V.C., eldest son of Mr. Robert Cockburn and Mrs. Cockburn, Eastwood, to Miss Elsie Scrase, eldest daughter of Mr. and Mrs. Scrase, West Bridgford, Nottingham.

## INSURANCE INSPECTION FEES.

Dear Sir,—It gives me very great pleasure to read Messrs. Duckworth & Prince's Scale of Fees for Derbyshire and Staffordshire, in to-day's *Veterinary Record*. I am sure many other V.S. are also pleased.

Will the enclosed list of Gloucestershire V. Surgeons' fees give us all the same pleasure?

### "Insurance Inspection Fees."

Horses under £50 insured value	...	5/-	ea.
" over 50 and under £80	...	7/-	"
" " 80 " 100	...	7/6	"
" " 100 " 110	...	10/6	"

Sixpence per mile, one way.

P.M. Fee, 1 guinea.

1. Any larger sum by arrangement.
2. Every case to stand on its own basis."

There's profit in that 6d. per mile, isn't there?

Yours, etc., W. V. S.

## How to kill an Association.

The following is recommended as the American infallible lethal recipe for this purpose :—

1. Don't come.
2. If you do come, come late.
3. If too wet or too dry, too hot or too cold, don't think of coming.
4. Kick if you are not appointed on a committee, and if you are appointed, never attend a committee meeting.
5. Don't have anything to say when you are called upon.
6. If you do attend a meeting, find fault with the proceedings and the work done by other members.
7. Hold back your dues, or don't pay them at all.
8. Never bring a friend, who you might think might join the Association.
9. Don't do anything more than you can possibly help to further the Association's interests; then when a few take off their coats and do things, howl that the Association is run by a clique.

*Pharmaceutical Journal.*

## Dr. Clement Stephenson's "A.A." Herd.

On the 3rd October the herd owned by the executors of the late Dr. Clement Stephenson will be sold at Baliol College Farm, near Newcastle.

The late Dr. Stephenson held a position all his own for forty years. A brilliant veterinary surgeon, a breeder of rare distinction, and a man of singular personal attractiveness, Dr. Stephenson's remarkable victories at Norwich, York, Birmingham and Smithfield Fat Stock Shows, and his immense enthusiasm were of extraordinary consequence in the Aberdeen-Angus world. His *Luxury* is still accounted a wonder, and very few have seen finer fat show specimens of the breed than Bridesmaid of Benton and Benton Bride. The herd is now in admirable breeding form. Most of the cows are fine milkers, and nearly all are in good season. The doctor's favourite families, the Brides, descended from Lady Craigo, the Lady Idas of the same foundation, Ericas, Jilts, Luxurys, three branches of Prides, Kinochtry Princesses, and Porthlethen Lucys are all there. The younger cows by the champion, Prince of Jesters, make a beautiful show. They have clean polled character, a general air of refinement, and wonderful

quality of bone. As a lot the heifer calves by the old champion and the home-bred Parole of Benton, a son of the well-known prize-winner, Reviver, make a pretty display, and there are promising bull calves in a well-grown group. Regret in connection with the removal of a long-familiar landmark is linked with pleasure in seeing such a grand collection of cattle at the end of the day.—*The North British Agriculturist*.

#### Calcium Carbide.

The Secretary begs to remind members that Calcium Carbide and Dissolved Acetylene for the purpose of head lights in motor cars can only be obtained by permit from the Controller of Non-Ferrous Material Supply.

Applications must be made through the Secretary of Royal College of Veterinary Surgeons, 10 Red Lion Square, W.C. 1, on forms AM2/H.B. The Secretary will be pleased to supply forms on application.

#### Rabies—Order for Devon and Cornwall.

A case of rabies in a dog at Plymouth has been confirmed by the Board of Agriculture and Fisheries. Several other cases that are suspicious have been reported and are now under investigation.

In view of these circumstances and the fact that it is known that in more than one instance persons have been bitten by suspected dogs the Board have made an Order prohibiting the movement of dogs out of the counties of Devon and Cornwall and requiring the control of dogs within a large area of these two counties.

The public are warned that any case in which symptoms suspicious of rabies are observed the police should at once be notified.

Board of Agriculture and Fisheries,  
Whitehall Place, S.W. 1.  
9th September, 1918.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)		(b)	(a)	
GR. BRITAIN.											
Week ended Sept. 7	6	8					40	58	2	22	3
Corresponding week in					1	1	29	36		25	7
1917 ...	4	4					23	55	1	67	40
1916 ...	6	6					16	23		62	277
1915 ...	6	6									
Total for 36 weeks, 1918 ...	182	210			23	65	3511	6654	254	1017	404
Corresponding period in					19	33	1901	3663	395	1738	754
1917 ...	333	381			36	91	1715	3871	185	3363	8661
1916 ...	379	449	1	24	37	66	1527	1286	160	3054	13606
1915 ...	424	484									

Rabies. 1 (dog) confirmed.

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Sept. 10, 1918

‡ Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND. Week ended Aug. 24							Outbreaks			
...	...	...	...	...	...	...	1	4	...	...
Corresponding Week in										
1917 ...	...	...	...	...	...	...	1	8	5	15
1916 ...	...	...	...	...	...	...	1	11	5	36
1915 ...	...	...	...	...	...	...	3	7	3	34
Total for 34 weeks, 1918 ...	2	2	...	...	...	...	97	202	17	57
Corresponding period in										
1917 ...	3	5	...	...	1	1	37	261	174	1046
1916 ...	3	7	...	...	...	...	47	278	219	1233
1915 ...	1	1	...	...	1	3	52	282	173	983

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Aug. 26, 1918.

IRELAND. Week ended Aug. 31							Outbreaks			
...	...	...	...	...	...	...	...	1	...	1
Corresponding Week in										
1917 ...	...	...	...	...	...	...	...	10	5	17
1916 ...	...	...	...	...	...	...	1	5	5	52
1915 ...	...	...	...	...	...	...	1	8	2	17
Total for 35 weeks, 1918 ...	2	2	...	...	...	...	87	203	17	58
Corresponding period in										
1917 ...	3	5	...	...	1	1	37	271	179	1068
1916 ...	3	7	...	...	...	...	48	278	224	1285
1915 ...	1	1	...	...	1	3	53	290	175	1000

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Sept. 2, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1576.

SEPTEMBER 21, 1918.

VOL. XXXI.

## THE COST OF DRUGS.

Veterinary Surgeons complain bitterly of the war prices of drugs, and not without reason. The increased cost of drugs is one of the various causes which justify an increase in veterinary charges; and it is likely to persist for a considerable time. But, if we compare the supply and prices of drugs with those of many other commodities, we shall find that our case might be much worse than it is. It is true that the high price and scarcity of many drugs, including some of the more important ones, is serious. In the case of others—the supply of which is State-controlled, veterinary requirements are being recognised by the Government; and it should not be forgotten that there are not a few most useful agents which remain plentiful in supply and reasonable in price.

There are successful practitioners who, for years past, have systematically followed the custom of always using the cheapest drugs that would meet the needs of the case. Doubtless the saving they effected in the individual case was often very small; but in the long run they accomplished a considerable economy. If it was worth while to follow such a practice in pre-war days, it is surely much more so now. Possibly some even to-day do not realise how many and varied are the possible therapeutic uses of, for instance, so well-known a drug as sodium bicarbonate.

## HODGKIN'S DISEASE OR PSEUDO-LEUKÆMIA.

Several cases in the dog of this interesting though very unsatisfactory condition have lately been recorded. Only one, however, was certainly diagnosed; for the use of the microscope is essential for differential diagnosis. Various diseases, especially leukæmia, malignant growths of the lymphatic glands, and some cases of tuberculosis, may easily be confused clinically with pseudo-leukæmia; and only the microscope can settle the question. Even the positive result of the tuberculin test does not exclude the possibility of a co-existence of leukæmia or pseudo-leukæmia.

No case of recovery from Hodgkin's disease is recorded, and no case likely to be clinically mistaken for it would be expected to recover; and thus Mr. Yates' statement that he has "heard from other practitioners of recoveries," is of some interest. All such cases belong to the class in which, if treatment is attempted at all, it would be well whenever possible to seek a pathologist's aid in establishing the diagnosis at the commencement. If this is not done, the pathologist can only pass judgment upon the unsuccessful cases; while any that may recover must remain unsolved problems.

## REVISION OF FEES.

We print this week a letter from Mr. S. Adams, on the revision of veterinary surgeons' fees in Gloucestershire which emphasizes two points in favour of the line of action taken there and in Derbyshire—that local adaptation is far preferable to a general rate: and secondly, that it is possible to obtain equally good results by more than one method of assessment. Incidentally it is brought out, too, that a fair amount of unanimity is likely to follow a judicious initiative.

A proposal of a similar character at the meeting of the Eastern Counties fell flat. Either the conditions are undesirable, or the initiative—in which the personal element counts so much—is lacking. True the statement is incomplete, in that only the rate of "mileage" is definitely mentioned as not workable. It is said that fees have been "notoriously low there for many years past." Does it necessarily follow that low fees should continue to rule there? Will not the earnings of those counties allow of reasonable fees to their veterinary practitioners? Thirty years ago a good part of agricultural Essex was derelict, and land was let in Suffolk at five shillings an acre for sheep feed: do those conditions exist now? And even if they do, do not present market conditions warrant an increase on the pre-war scale of fees? Finally, it has to be remembered that the public are as willing as ever to rate a man (or a group of men) at his own valuation. Possibly the remark as to low fees was intended to apply particularly to C.C. and Insurance work, but it is not so stated: and if it were, we may call to mind the enthusiastic and persistent efforts of the late Theo. C. Toope, and the fair measure of success which attended them in Kent.

Two other items in our columns this week are worth a passing note. One from the Journal A.V.M.A., is the main part of a resolution passed nearly two years ago, from the Amer. Vet. Med. Association to the Hon. Secretary of War, concerning the depletion of the Horse Stock of the country. It is of interest in that it is an exemplification of the position taken by the Association, and of their initiative on a question with which they are intimately acquainted. It is wholly satisfactory in that it is a distinct movement of the profession to claim its rightful position—to prove its value, and to utilise its accumulated knowledge for the benefit of the State.

Another is a resolution concerning the advertisement of biological products, and read in connection with the recent confiscation of a consignment of these goods, it appears that their government is taking action against this form of swindling.

## TWO CASES IN CHILDREN OF TUBERCULOSIS OF SUPPOSED BOVINE ORIGIN.

By G. GAIR, M.R.C.V.S., Conon Bridge, Ross-shire.

*Case I.* A child, two-and-a-half years old, believed to be affected with epidemic cerebro-spinal-meningitis.

A sample of the cerebro-spinal fluid was obtained by puncture and handed me by the hospital surgeon, with a request to examine the liquid for the diplococcus intracellularis meningitidis. Although I examined the fluid within half-an-hour after its being drawn, no meningococcal infection could be detected. The fluid itself was rather clear, and contained a considerable percentage of lymphocytes.

This lymphocytosis would indicate a tuberculous or poliomyelitis process. A few films of the fluid were therefore made and stained by the Ziehl-Neelsen method, when numerous tubercle bacilli were revealed.

For the purpose of ascertaining the changes in the nuclei of the polymorphonuclear (neutrophil) leucocytes in advanced tuberculosis, I obtained blood films from the child and stained by Leishman's method. A few of these films which I had over were stained by Ziehl-Neelsen method and a number of tubercle bacilli were found: as many as ten might be seen in one field. Several fields showed varying numbers up to four. Great care is required as to "finds" of tubercle bacilli in blood films; there are so many pitfalls, and several reported cases have not borne investigation. Artefacts (particles from stains, distilled water, etc.), may be mistaken for organisms.

The case was one of advanced tuberculosis. The child died a few days afterwards.

The milk supply was obtained from a dairy in the district from which the child came, and in which dairy tuberculous cows were found.

*Note.* Concerning the prevalence of lymphocytes in the cerebro-spinal fluid mentioned above, I have repeated noticed that this result is very indicative of tubercle bacilli, while the presence of polymorphs indicates a meningococcal, streptococcal, or pneumococcal infection. Normally there are only one or two leucocytes per cubic millimetre, but in diseased conditions the number is increased to from fifty to one hundred per cubic millimetre.

This count is easily ascertained by using gentian-violet-tinged three per cent. solution of acetic acid, which is drawn up 0.5 on the pipette. The cerebro-spinal fluid is then sucked up to 11.0. After mixing, make the cell-count with the hæmocytometer. Cerebro-spinal fluid containing blood is not satisfactory for the cell-count, but one can calculate the leucocytes in such blood contents by counting the red corpuscles, and subtracting one leucocyte for every 750 reds.

*Case II.* A child, aged two years and nine months. The history of the infection was as follows:—

The milk supply for the child was obtained from cows which were tested by me half-yearly with tuberculin, and which were always in excellent health.

About mid-March the milk supply from these cows was discontinued through their approaching calving, and the milk from a neighbour's cow was thereafter used. No other milk was given the child for the ensuing ten days when, on visiting the byre, I found the cow had an occasional cough and, on closer examination, that one of the hind quarters was enlarged. On examining the milk from this quarter, I discovered great numbers of tubercle bacilli therein.

I had the milk supply from the animal immediately stopped, and informed the parents of the child that although it only had the milk for ten days, the fact of the milk containing tubercle bacilli in such numbers would certainly cause serious trouble later. I also advised them to notify their medical advisor of the facts.

Three months afterwards the child became decidedly ill and restless. The mesenteric glands became appreciably enlarged, and by December the spinal column was involved. Two Edinburgh specialists diagnosed the case as tuberculosis of bovine origin caused by tuberculous milk and to whom, by request, my report on the case was forwarded.

There is no question of heredity in the case, as all the family were and are in excellent health.

The child is still under medical treatment.

## ARSENICAL POISONING IN THE HORSE WITH PULMONARY COMPLICATIONS.

The condition which we are about to describe is met with in the mining districts of Cornwall, and possibly also in other counties where horses are worked in similar surroundings. It may be assumed that the symptoms are those of an uncommon and apparently undescribed form of arsenical poisoning, and in many respects there are marked deviations from the appearances exhibited when the drug is consumed in toxic doses. The condition in question is in all probability a reflex one, dependent upon irritation of nerve endings, possibly also of the respiratory centres in the medulla, which in most cases have already become impregnated with arsenic.

The horses affected are to be found among those employed in carting stanniferous ores and sand, in the vicinity of tin streaming operations. The majority of the animals which exhibit the symptoms are old and usually somewhat emaciated, and often have spent the greater part of their lives in the same surroundings, have become saturated with arsenic and able to tolerate the drug in the amounts which might be absorbed during the course of their ordinary work. It may here be stated that practically all horses which have been employed for any length of time at particular work in connection with tin-mining and in districts where the soil, forage and water are all more or less contaminated with arsenic, show symptoms of chronic poisoning. This state of chronic arsenicalism is manifested by a dry, staring coat; in a few advanced cases alopecia exists to a marked degree; brick-red dis-

colouration of the visible mucous membranes, and a general appearance of unthriftiness.

Beyond this stage the toxic symptoms seldom progress under ordinary conditions except when, as we shall now show, a relatively enormous dose of arsenic is absorbed on one or more occasions by an animal whose system is already saturated with the drug.

The tin-streams and pools usually contain, in addition to tin ores, large amounts of iron compounds, notably the red-oxide and combinations of iron, arsenic and sulphur (mispickel mundic, etc.), as well as, in some instances, free arsenic and various other mineral compounds.

In all cases of the particular condition we have met with the history has shown that the horses have, within a short period, drunk from the "mundic water." In a few cases it would appear that the same thing has occurred upon other occasions without any ill-effects having been observed, in fact the drivers appear invariably careless of such happenings, and frequently leave their charges standing knee deep in the streams in order to cure "grease." The same disregard of danger is shown by cowkeepers, who dose their cattle with the water in an endeavour to check chronic diarrhoea—a condition not infrequently arising in these localities from ingestion of arsenical fodder—disregard the fact that the proportion of the same metal in the water is frequently exceedingly high.

The fact that horses will voluntarily drink such contaminated water may appear strange until we recollect that cases only occur in animals whose digestions have been already impaired by the continued admission of arsenic to the alimentary canal, and in which the appetite has become depraved. Such horses will frequently drink greedily from the streams if permitted.

The horse becomes suddenly ill. The attitude is one of extreme dejection, the head is held at the level of the knees, the elbows are abducted, and respiration is greatly accelerated. The breathing rapidly grows noisy, and more or less marked spasm of the glottis occurs, which occasions a prolonged snore at each inspiration. The conjunctival mucous membranes are congested, brick-red, and frequently protrude beyond the eyelids. The nasal membrane is also congested and shows the same pronounced tint, whilst the nostrils are widely dilated. The inspiratory effort is somewhat prolonged but the double expiratory movement common in emphysema is lacking.

Auscultation of the thorax reveals a distinct asthmatic condition arising from spasmodic constriction of the bronchi with more or less spasm of the glottis. Fever is usually absent, and the animal exhibits no symptoms indicative of abdominal pain.

It soon becomes evident that the pulmonary vessels are becoming overloaded with blood, and a marked "venous pulse" may be observed. From this time the symptoms may abate, but in the great majority of cases pulmonary congestion ensues. The breathing becomes more distressed, the glottis is evidently constricted to a marked degree and

respiration is distinctly audible at thirty yards. The horse may now fall and die from asphyxia after an illness lasting only a few hours. In many cases, however, the condition persists for one or two hours longer, and œdema of the lungs sets in. Froth collects around the nostrils, a very copious rusty or blood-streaked discharge emerges, and the horse gradually subsides into a state of coma and dies.

In one case, death was preceded by extensive hæmorrhage from the lungs, an indication of the degree of pulmonary congestion present.

Treatment appears useless. The degree of dyspnoea precludes any possibility of administering drenches. Bleeding from the jugular, and the hypodermic administration of stimulants affords no relief. In nearly all cases the condition ends fatally.

At the commencement the symptoms are in most respects identical with those of asthma, and in those cases which have recovered there has been nothing, apart from the history, to distinguish the condition from an ordinary attack of acute spasmodic asthma.

We have never observed typical cases, running the complete course and terminating in death, among horses employed on mine works, unless they have previously been the subjects of chronic arsenical poisoning and have subsequently been known to drink water from the contaminated streams. There is, however, nothing to suggest that similar cases may not arise when the source of the arsenic is other than "mundic water."

R. H. SMYTHE, M.B.C.V.S.

Falmouth.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### INFLUENCE OF FRESH AND STERILISED COW'S MILK UPON THE DEVELOPMENT OF NEURITIS IN ANIMALS.

R. B. Gibson and I. Concepción reported some experiments upon this subject in the *Philippine Journal of Science* for 1916. In two chickens, fed daily with 100 c.c. of milk, fresh or submitted to the autoclave, and with 40 grammes of decorticated rice, a slight polyneuritis was produced in the fifth week. Feeding with 200 c.c. of fresh or sterilised milk produced neither polyneuritis nor even any histologically demonstrable commencement of nervous degeneration. These facts prove that milk contains a small quantity of vitamine, which is not destroyed by two hours in the autoclave at 125° C.

Small dogs, fed exclusively upon fresh or sterilised milk, at the end of forty-seven days showed peripheral neuritis with œdema and aphonia, but no scorbutic symptoms. Analogous results were obtained in pigs. In all the cases, alike in animals fed with autoclaved milk and those fed with fresh milk, growth was accomplished. This confirms the observation made upon the chickens, viz., that the anti-neuritic vitamine resists the autoclave.

This vitamine exists in the milk in very small quantity; for if nothing is added to the lactic regi-

men of young dogs and pigs, the animals become bevi-bevic. The anti-neuritic power of milk is so feeble, that in infantile alimentation the regimen should be extended as much as possible. The young of mothers in good bodily condition are probably born with a reserve of vitamins; and this enables them to feed upon milk and grow regularly till a diet more rich in vitamins is available.—(*Revista de Higiene y Sanidad Pecuarias*).

#### SUPRASCAPULAR PARALYSIS FOLLOWING FRACTURE OF THE SCAPULA.

Fröhner records this case in the *Monatsheft für praktische Tierheilkunde*. A horse, after a long period of lameness of the left shoulder, finally presented the symptoms of suprascapular paralysis. The animal died of colic. Post-mortem, Fröhner found the inferior third of the scapula enlarged to double its normal size and covered with irregular osseous vegetations, which completely englobed the suprascapular nerve. This large callus had resulted from the union of a scapular fracture. The left posterior spinatus muscle was very atrophied and degenerated. Fröhner also records an analogous case described by Karnbach.—(*Revista Veterinaria de Espana*).

#### THE TREATMENT OF BROKEN KNEES.

Schwendimann, of Berne, has written an article upon this subject in the *Schweizer Archiv für Tierheilkunde*. He emphasises the depreciation in a horse's value which the scars of broken knees cause. It is the common opinion that wounds of the knee leave in the injured joint a "debility," which tends to cause new falls. Undoubtedly the retraction of the cicatrix impedes the rapid movement of the carpus, and the joint also frequently undergoes chronic peri-articular inflammatory processes and contractions varying in degree.

These wounds are treated on general lines. Sometimes the treatment is difficult on account of dirt in the wound. In that case all dirt, dead tissue, and earth is removed with scissors and forceps, avoiding hæmorrhages and damage to living tissues. The rest may be left to nature; but it is possible to accelerate the reparative process and so obtain a better cicatrization. Moist antiseptics are useful for this purpose. An embrocation, or a sprinkling of the wound with turpentine, give excellent results, accelerating the separation of mortified tissues and causing a healthy granulation. Treatment is more difficult when there is much loss of substance.

Causes which retard recovery are the dryness and rigidity of the lesion from loss of water, the absence of epidermal counter-pressure, the persistence of infection, and the pruritis, with consequent damage to the affected part, which is presented at this stage. The author, therefore, recommends the use of a protective covering for the lesion. It is not essential that such covering should display any specific action; that it protects the part is sufficient. The author names several, including Unna's zinc-gum (glycerinated gelatine with zinc), Schindelka's

varnish (five parts each zinc oxide and ol. ricini with 40 parts collodion, and those substances which produce a dry cuticle of coagulated albumen. Of the latter he especially mentions a 10% solution of nitrate of silver. Immediately after the application of this, a cuticle of albuminate of silver is formed, which becomes black under the influence of light.—(*Revista Veterinaria de Espana*).

W. R. C.

#### EASTERN COUNTIES VETERINARY MEDICAL SOCIETY.

(NATIONAL V.M.A.—SOUTHERN BRANCH).

A meeting was held at the Bell Hotel, Norwich, on Saturday last, the 14th inst. Those present included: Messrs. H. V. Low, President, Norwich; E. Margaron, Swaffham; M. Bray, Docking; J. K. Gooch, Reepham; J. Barr, Acle; A. Holl, jun., New Buckenham; H. Buckingham, Norwich; J. Buckingham, Harleston; and H. P. Standley, Secretary *pro tem.*, Norwich.

Letters expressing inability to attend were received from Messrs. A. Burgon, Haverhill; J. E. Kitchen, London; H. F. Downe, Diss; W. Turtill, Wickham Market; H. Wilkinson, Martham; F. M. Wallis, Halstead; and others.

After discussion it was decided that the next meeting should be held at Norwich, in the Spring, at a date to be fixed later.

Some of the members of the Essex and Suffolk district considered that meetings ought to be held nearer to them, but it was felt that at the present time, with the rail service so disconnected, this was impracticable. On return to normal times, however, the meetings will be held in the different centres, as in the past.

Mr. H. B. NIXON, of Haverhill, was elected a member of the Society.

The officers for the past were re-elected *en bloc*.

It was decided to send donations of £15 15s. from the Society funds—to the Victoria Benevolent Association one of £5 5s.; to the Royal College of Veterinary Surgeons £5 5s.; and to the Farmers' Benevolent Association £5 5s.

A discussion took place on the veterinary fees as put forward in *The Veterinary Record*, Sept. 7th, by Messrs. Duckworth and Prince, of Derby, but it was felt that the mileage of 1/3 for visits could not be charged in the Eastern Counties, on account of the notoriously low fees which have been in existence there for so many years past, and it was pointed out that a good many veterinary surgeons had only been charging from 1/6 to 2/6 a visit of almost any distance.

After the business many interesting cases were brought forward by the members present, and a lively discussion on these took place.

HARRY P. STANDLEY, Secretary, *pro tem.*

#### INSURANCE INSPECTION FEES.

To the Editor of "The Veterinary Record."

Dear Sir,—It is with great reluctance that I feel that I am compelled to reply to the letter of your anonymous correspondent, "W.V.S.," on Insurance Inspection Fees of Gloucestershire Veterinary Surgeons. As the initiator of this movement I desire to state what we have done in this County. In 1916, being personally dissatisfied with the mileage rate as fixed by the Gloucestershire County Council to their Veterinary Inspectors acting under the Contagious Diseases (Animals) Acts, I wrote

to the Clerk of the Council, pointing out to him the various increases, and asking his Council to advance the mileage rate then paid, viz., 1/- per mile (one way). I waited seven months before obtaining a reply to say that his Council had considered the matter and could not advance the rate.

I thereupon communicated with all my fellow Inspectors in this County, suggesting a petition to be signed by all and presented to the Chairman of the Council, asking for a higher rate. I obtained unanimous support, the petition was duly presented and I attended the County Council Meeting in January, 1918, at their request to support it, with the result that we were successful in obtaining a mileage rate of 1/6 per mile (one way). Also an increased fee for Parasitic Mange diagnosis.

The success attending this movement gave me the necessary encouragement to endeavour to increase the rates paid by Insurance Companies. I circularised a number of my colleagues in early 1918, giving them my personal ideas and asking for suggestions. I had in reply many suggestions which showed much thought and consideration. From these replies the enclosed scale\* was drafted, and approved by every Veterinary Surgeon in the County of Gloucester, and by many of their neighbours in the adjoining counties.

I congratulate Messrs. Duckworth and Prince upon their published scale of fees, and I desire to point out to "W.V.S." that Insurance Inspections are not expected to be carried out at once. Seven days may elapse before the return is made. Also that our scale will show approximately the same return per animal per inspection in this County as that obtained by Messrs. Duckworth & Prince.

Upon reference I find last year that the average inspection entailed five miles (one way) and the average value £80 to £100. This, under our scale, would make the fee 10/-. Next year the value should be higher, when the return will be greater. We have adopted for the first time a mileage rate, and hope that such will be recognised generally in future. I think you will agree, Mr. Editor, that we have done something in obtaining 1/6 per mile from the Gloucestershire County Council, and our scale for Insurance examinations, which is open to annual revision, shows an advance of 33½ % for work which is not immediate but can be done at one's convenience, being a start in the right direction.

I may add that the funds of the Royal College of Veterinary Surgeons benefited also, inasmuch that those gentlemen who were not already subscribers promised to become so, and were supplied with the necessary Banker's drafts.

I regret to occupy your space at such length, and I have every confidence that the members of the profession will judge our efforts in the County of Gloucester as honest endeavours in the right direction.

I am, Sir, yours truly,

Dursley, Sept. 17.

A. S. ADAMS.

\*THE LOWEST SCALE of Fees which will be accepted by the Veterinary Surgeons of the County of Gloucester and their immediate neighbours, for Inspections and Reports to Live Stock Insurance Cos. :-

Horses under £50 insured value	...	each	5/-
" over 50 and under £80	...	"	7/-
" " 80	...	"	7/6
" " 100	...	"	10/6

Post-mortem examination, £1 1s.

Sixpence per mile, one way.

1. Any larger sum by arrangement.
2. Every case to stand on its own basis.

### Remounts for U.S. Army.

The following paragraphs are from a letter sent by the American V.M.A. to the Hon. Secretary for War; they seem to indicate a better measure of co-operation than exists in Britain. The intercommunication with Government Departments is a recent innovation with us.

"Already it has become very difficult to secure serviceable horses for the regular army and militia service, and in the south-west it is out of the question to buy the really desirable type, as the amounts offered for the purchase of individual horses are not enough to meet the bids of the buyers of the foreign governments.

"It is the opinion of this association that this situation is already a handicap to our army and could be converted into a serious menace by international complications such as have threatened this country a number of times in the past two years. To meet this situation there are two things which this association would respectfully bring to your attention.

"One suggestion is that the United States Government meet the prices of foreign buyers in purchasing horses. It is not to be expected that owners of horses will sell them to the government at a sacrifice in preference to selling them to foreign buyers at a profit. Not only a regard for the best interests of the country, but good business judgment should indicate that when suitable remounts command increased prices, those prices should be authorised and paid rather than permit the purchase [by the government] of unsuitable and inferior types of animals.

"Another suggestion is that the purchase of mares be authorised. The old objection that they could not be kept owing to the presence of stallions, the property of officers, no longer applies as the use of stallions is not permitted. It is the opinion of the army and militia officers in general that mares are as desirable animals, and polo players regard them as perhaps superior in endurance and perception. All of the foreign armies use mares. A new French contract now being filled, calls for 25,000 horses, of which 20 % to 30 % shall be mares. At Ft. Riley 40 % of the remounts are mares, and in the army polo organisation 60 % of the ponies are mares.

"We have the precedent of the purchase of mares for the Native Cuban Cavalry by Q.-M.-Gen. Luddington during the Spanish-American war on the grounds that these animals would be of more value to them at the close of the war in re-stocking the country with horses. At the close of the present European war, unquestionably many of the mares now leaving this country will be sent to the farms as were the mounts of the Cuban Cavalry and those of the American armies at the close of the Civil War. There could be no objection to this if it were not that the removal of the pick of the American Cavalry horses is already so extreme as to threaten us with serious consequences if our army should need them any time in the next few years. A fresh crop of horses can no more be produced out of hand on demand than can trained soldiers be produced.

### Udder Disease in Dairy Stock.

To the Editor of *The Scottish Farmer*.

Sir,—Mr. Scott points out, in his letter, the seriousness of the disease known technically as contagious mammitis. There is every reason to believe that this disease could be eradicated if the matter were taken up in the proper manner. The first step would be a proper bacteriological study. It is highly probable that an efficient preventive vaccine could be prepared which would immunise healthy cows wherever there is a possibility of their becoming infected, in the same way as human beings can be immunised by the injection of

typhoid vaccine against typhoid. The matter would have to be taken up by the local authorities in the infected counties. A proper scheme could be easily worked out. It would provide for compulsory notification to the county veterinary inspector through the police, the isolation and detention of the affected animal. Provided an efficient vaccine could be prepared and a suitable method of vaccination devised, the farmer would be given the opportunity to have all the remaining healthy cows vaccinated. It might be found worth while to vaccinate healthy herds where the disease has not yet appeared. A better study of this disease might show that an effective serum can be prepared which would arrest an attack if injected into an animal very early in the course of the disease. This would be expensive and could only be done for valuable animals. I give only this rough sketch to show the need for scientific investigation into this as well as other diseases.

Yours, etc., S. H. GAIGER, F.R.C.V.S.  
Glasgow Vety. Coll. Prof. of Pathology.

### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Sept. 12.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temp. Lt. :—J. McL. Galloway (June 29).

Sept. 13.

Capt. H. Peele (T.F.), to be actg. Maj. while holding the appt. of Dep. Asst. Dir. of Vety. Servs. (July 28).

Sept. 17.

Maj. (Bt. Lt.-Col.) A. Olver, C.M.G., F.R.C.V.S., to be actg. Col. whilst holding the appt. of Dep. Dir. of Vety. Servs. (Sept. 18).

Temp. Capt. to be actg. Maj. :—R. Clunas (June 18).

Temp. Capt. H. Barnard relinquishes his commn. on account of ill-health, and is granted the hon. rank of Capt. (Sept. 18).

Sept. 18.

To be temp. Lts. :—N. M. Crawford, G. E. Lay, J. T. Melanson, E. S. Notting, I. Robson (Aug. 7); F. W. Buckle (Aug. 8); W. F. Fennelly, A. J. Kelly (Sept. 1).

TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Sept. 13.

Capt. (actg. Maj.) P. J. Simpson to be Maj. (May 27, 1916).

### A Lesson.

One does not learn all his lessons in college. Here is one I might have learned but did not. It may be of help to some other practitioner.

I was called about 8 p.m. to see an aged horse that had suddenly gone "dead lame" while at pasture. A young man who had been hunting started to drive the horse to the barn. The old horse appeared to be frightened at the boy's gun, galloped a short distance, stopped suddenly and refused to move except on three legs. The owner, an old German, took a lantern and went with me to the pasture. An examination revealed a comminuted fracture of the os suffraginis of the left front leg. The broken pieces would simply "squash" on pressure. It was a hopeless case as the horse was at least twenty years old, so I told the owner I could do nothing for the horse and that he should be put out of his suffering. The old man dropped his lantern and throwing his arms about the horse's neck cried like a child. On my way back to the barn the old man, between sobs, offered to pay me for my visit, but as he was in rather poor circumstances and this was his only horse I had pity for him and made no charge.

After I had left he sent eight miles for a non-graduate to see the case. This man confirmed my diagnosis and

prognosis and took his fee. I did not like it very well and the next time I met Herman on the road I told him so. He said, "Vell, you didn't charge me nothings, so I takes dat money for the odder feller."—D.V.S., in *Jour. A.M.V.A.*

### Plea for French Colonial Veterinary Service.

The confirmation of rinderpest in French Western Africa calls attention anew to the insufficiency of the Veterinary Services in our Colonies.

It is not possible by the hap-hazard recruiting of civil practitioners, or by making use of military veterinary officers liable to frequent changes of station, to constitute a *personnel* capable of carrying on the difficult tasks imposed upon them.

It is both necessary and urgent to effect for the Veterinary Service what has already been done for the Medical Service, that is—to create a corps of colonial veterinarians specially prepared by a suitable course of training. It is not less indispensable that these services should possess an autonomy and a status which would enable them to fulfil their mission effectively.

The knowledge acquired of the tropical diseases of animals is already considerable. We may be sure that it will increase rapidly under the hands of men trained in the methods of investigation. For the moment we need only recall what has been effected by our allies, the English, in India and in South Africa.

In any case, the European nations will need to husband their resources for long years to come, and to obtain all possible help from their colonies. To develop and conserve the live stock of our colonies is to prepare for the future.—*Revue générale de Médecine Vétérinaire*.

### Misleading advertisements.

The following was adopted by the Committee of the American V.M.A. a couple of years ago. There is less need for it on this side, perhaps, but it is a perfectly justifiable position.

The Special Committee on Advertisements of Veterinary Remedies recommends that the following resolution be adopted, by this association :—

*Resolved:* That misleading claims for biological products should not be tolerated by this association, and any official of any firm or corporation who is a member of this association and allows such claims to be made, the same shall be sufficient reason for rejection or expulsion from this association; and this association should accept the federal regulations governing biological products as a standard of application."

### Personal.

#### MILITARY MEDAL.

Corporal (A/Sergt.) S. V. GOLLEDGE, of "D" Compy., Duke of Wellington's West Riding Regt., eldest son of Mr. J. Golledge, M.R.C.V.S., of Brookfield, Trowbridge, has been decorated with the Military Medal at the hands of Lord Cavan, Commander-in-Chief of British Forces in Italy.

The accompanying certificate reads :—"During the action this N.C.O. was responsible for the blocking of the trenches on the flank and in carrying out his duties showed great skill and coolness. He rendered valuable assistance at the end of the operations in getting wounded away from the enemy lines, personally carrying back a N.C.O. Throughout the raid and in previous reconnoitring his conduct was beyond all praise."

Sergt. Golledge joined the A.V.C. in 1915, and was transferred to the Infantry in 1917.—*The Wiltshire Times*, Sept. 14.

[Before joining up, Sergt. Golledge was a student at the Royal Veterinary College.]



# SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

S. Chambers, Kirkheaton	£1	1	0
W. St. J. F. Macartney, Capt. A.V.C.	1	1	0
J. M. Tate, Pretoria	1	1	0
Previously acknowledged	995	12	11
	£998	15	11

# "PATENT MEDICINES."

Sir,—The above is a misnomer. If these preparations were patented the formula would have to be disclosed to the public. The proprietors have no legal right to use the word patent. It is used as a blind, and to increase the mystification surrounding these expensive and, in most cases, useless nostrums. They do not sell on their merits, but by expensive advertising, and glib tongues of travelling agents, who make farmers believe that they will drag any case from the brink of the grave.

Here is the composition of one or two:—

"Red Drink." Mag. sulph., a little pulv. gent., and zing., and Bol. G.S. to colour.

"Hoose Mixture." Ol. turp., Ol. lini., a "whiff" of Eth. sulph., colour.

A largely advertised liquid blister:—Tinct. canth., Tinct. caps., Ol. croton, Sp. V., colour and scent.

In order to combat the sales of these preparations we must put up a united front, and act as one man, in condemning and opposing their use in every case.

Two years ago I issued circulars among farmers in this district pointing out that they had to pay for all the expensive advertising, fancy labels, cases, boxes, rail carriage, and swell travellers, in return for articles of very doubtful utility, and certainly not worth the high prices charged for them. These circulars diminished the sale to a large extent, and I know some of their "toffs" had some nasty questions put to them "next time round."

I think this is a case in which the Board of Agriculture could render valuable assistance to the farmer, by analysing, and publishing the formula of these nostrums. The mystery would then disappear, and with that the sales—to vanishing point.

Farm stock is too valuable at present, and should not be the receptacle for "Night, Sun and Humbug's" cure-all, because "I happened to have it in the house."

The firms who sell these preparations do not contribute anything to the State in the way of stamp duty, and at the present time are using drugs which might, with advantage to the nation, be directed into more useful channels.

R. M. MALLOCH, M.R.C.V.S.

Kirkby Stephen, Sept. 14.

# A PROLIFIC MOTHER.

Recently a retriever bitch gave birth to eighteen puppies; fortunately for the food supply, only seven of them survived. The owner is Mr. Gardiner, Fearon Street, Greenwich.

Blackheath, Sept. 14.

HENRY DYER.

At the annual honey market of the Co. Wexford Beekeepers' Association, held at Enniscorthy, the takings were estimated at £3000; one small farmer received £350 for his supply.

# SUPPLY OF VETERINARY SURGEONS FOR THE ARMY.

To the Editor.

Sir,—"Joseph Bindle" is right. I know a gentleman who joined up at Potchefstroom as a private in the S.A.M.C., under the assurance that when he got to England he would be given his commission in the A.V.C. He duly arrived in England—during the bitterly cold wintry weather—and was very shortly packed off to France. From here he was sent home about a year ago as a stretcher case. He has several times applied for his commission, but is still a "Tommy." Like "Joseph Bindle's" case, this gentleman had sat for his D.V.H., and, incidentally, nearly saved the life of a horse (how valuable I cannot say, but worth at least £85 at that time) in France. The animal belonged to his own unit, had fallen into a shell hole and somehow or other had severed a radial artery. Our "Tommy's" C.O., knowing him to be a qualified veterinary surgeon, called him to the case, and "Tommy" proposed castrating the animal, cutting down on, and picking up and ligaturing the artery. But REGULATIONS (Capital letters, please) would not allow a "Tommy" to do this, so a V.O. (distant about 10 miles) was sent for, but—the horse had bled to death before this latter gentleman arrived! At least £85 plus the price of another to replace him thrown away.

No doubt you have heard about Sister Susan sewing shirts for soldiers? Here is a parody on the S.A.M.C.: Silly S.A.M.C.'s scraping scabs off soldiers. Just imagine! A fully qualified and thoroughly efficient veterinary surgeon—I know him well—scraping scabs off soldiers!

There is a great demand for Veterinary Officers! In the parlance of our friend, the Gaul—*Je ne pense pas!* It would be interesting to know how many V.O.'s are at the present time languishing in Woolwich and Aldershot waiting to go somewhere.

By-the-way. What will become of the vast quantity of unqualified men? I personally know such an one (a captain) who has been at least once, and I believe twice, prosecuted by the Royal College—who have been granted commissions? Will they be presented free, gratis, and for nothing with a diploma by our President and Council, or be given such high credentials by the Big Bugs of our Veterinary Service as to enable them to settle down in opposition to Veterinary Surgeons (both "Tommies" and "Officers"), and

SILVER BADGE?

Sept. 5.

# Scientific and Industrial Glass Ware.

In a lecture by Prof. Sir Herbert Jackson, delivered at the British Scientific Products Exhibition on Sept. 6, the lecturer disposed of the fallacy that until the war we did not manufacture optical glass. Seventy years ago British lenses were famous, and now 95 per cent. of what was used in this country was made here. Specimens which he had seen produced by an English firm during the past six months were finer than any he had seen from any other part of the world. We are now making finer glass for the laboratory, miner's lamp glasses, thermometer-glass, opal glass, etc., than any ever imported from Germany. Forty-one million vacuum fruit jars have already been produced by our makers and distributed. Sir Herbert has every confidence that after the war England will rapidly regain and maintain her old position in the glass industry.

# Horses in low condition.

At Woodbridge, on Thursday, 12th inst., before the Right Hon. J. W. Lowther, M.P., chairman, and Mr. H. F. Harwood, Sidney Abbott, carman, 8 Handford Road, Ipswich, was charged with cruelty to a horse at Grundisburgh, and Alfred Hughes, foreman horsekeeper, 1 Crown Street, Ipswich, was charged with causing the horse to be ill-treated. Mr. Bernard Pretty defended.

P. C. Gray stated that when a pair of horses in a van belonging to Messrs. Talbot & Co. drove up to the Dog

Inn, at Grundisburgh, the near side bay mare fell exhausted, and examination revealed a number of wounds. On a later date Abbott, who was in charge of the horses, told Inspector Sheriff, R.S.P.C.A., that he was out for the purpose of collecting empties. The mare had some wounds on the shoulder, but it was thought they had sufficiently recovered to admit of one journey; he had called the attention of the foreman to the condition of the horse before he started. Hughes, on being interviewed by Inspector Sheriff, said he sent two horses to do what as a rule one had to do. The horses were on rations, and all were in a low condition; they were willing to buy them food if they could get it.

Hughes, giving evidence, said he had had charge of horses for twenty-three years, and had now twenty in his care. He had not been able to get sufficient and proper food for them; he bought the best he could get. He had won several prizes and certificates for the care of horses at the Felixstowe and Ipswich horse parades.

Mr. William James Browning, M.R.C.V.S., said Hughes was a very superior horse manager; he had known him for many years, and he had always taken great care of the horses under his care.

Abbott deposed that there were only 35 dozen empty bottles in the van.

The Chairman said the Bench decided to convict under the section of the Act which stated that if any person did any act causing unnecessary suffering they were liable. Hughes would be fined £1 and Abbott 10s.

The fines were paid, but at the conclusion of the Court Mr. Hughes asked that it might be returned in order that he might appeal against the decision.—*East Anglian Daily Times*.

#### Rabies in Devonshire.

The Board of Agriculture and Fisheries wish to inform Veterinary Surgeons that many dogs, including dogs taken to sea-side resorts by their owners, have been removed from Devon and Cornwall before the Order, which prohibited movement of dogs from these counties was issued on September 9th, 1918.

The Board therefore suggest that Veterinary Surgeons take this fact into consideration when being consulted about dogs which have recently been in either of these counties, or dogs which have been in contact with such dogs.

Dogs suspected of being affected with rabies should be placed in security and reported to the Police under the Rabies Order.

Veterinary Inspectors of Local Authorities who suspect from the symptoms, history and post-mortem finding that a dog has died, or been slaughtered on account of rabies, should sever the neck where it joins the shoulders.

The head and neck should be wrapped in a cloth which has been soaked in a solution of corrosive sublimate (1-1000), packed in a strong box marked urgent and sent by passenger train to the Laboratory of the Board of Agriculture and Fisheries, New Haw, Weybridge, Surrey.

For purposes of identification a note giving the names and addresses of the sender and owner and a brief history of the case should be enclosed in the box in such a manner that it avoids contact with the damp wrapping.

There should be no delay in making the post-mortem examination or dispatching the head and neck to the laboratory.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)			(a)	
Gr. BRITAIN.											
Week ended Sept. 14	3	4			1	1	28	58	1	22	6
Corresponding week in											
1917 ...	5	5					18	28	4	15	8
1916 ...	6	6			2	5	16	28		62	55
1915 ...	9	10			1	2	8	25		39	97
Total for 37 weeks, 1918 ...	185	214			24	66	3529	6711	255	1039	410
Corresponding period in											
1917 ...	338	386			19	33	1919	3691	399	1753	762
1916 ...	385	455	1	24	38	96	1731	3829	185	3425	8716
1915 ...	433	494			38	68	1605	1311	160	3093	13703

Rabies: Sept. 7. 1 (dog) confirmed.

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Sept. 17, 1918

† Counties affected, animals attacked:—London 1  
Excluding outbreaks in army horses.

IRELAND Week ended Sept. 7	Outbreaks		1	4	5
	1	1			
Corresponding Week in					
1917 ...	2	5	3	10	
1916 ...	4	14	6	21	
1915 ...	1	6	6	5	
Total for 36 weeks, 1918 ...	88	204	21	63	
Corresponding period in					
1917 ...	39	276	182	1073	
1916 ...	52	292	230	1306	
1915 ...	54	296	181	1005	

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Sept. 9, 1918.  
NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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## SCHEDULED DISEASE.

Last month two events occurred which forcibly remind us of our constant danger from contagious animal disease abroad. Foot-and-mouth disease appeared in East Sussex; and a case of rabies was detected at Plymouth.

We have become familiar with these incursions of foot-and-mouth disease; and there is, fortunately, no reason to fear that we shall be less successful in dealing with the present one than with many others in the past. The outbreak of rabies may seem more of a novelty to the public; but it will not surprise veterinarians. Only one case of canine rabies has appeared in England since 1902; and that one developed in the security of quarantine, thereby justifying our quarantine regulations. Throughout that long period of immunity the disease prevailed more or less in France and other Continental countries, and only our rigid quarantining policy has preserved us from it. Soon after the war broke out it increased greatly in France, as was inevitable; and the subsequent developments in cross-channel intercommunication must have afforded temptations and facilities for dog-smuggling. Doubtless the present outbreak has originated in some transgression of the regulations; and we can only hope that any such that can be brought home to the perpetrators will receive the utmost severity the law permits. The maximum legal penalty for this offence is much too light, considering the issues involved. If all detected infringements are dealt with sharply, and the old preventive measures strictly applied whenever necessary, we need not fear a re-establishment of rabies here. Already there are cases confirmed in six dogs and one other animal, and other outbreaks may follow for some time to come—perhaps far away from Plymouth. At present, all practitioners should be on the alert against the possibility of rabies, especially in view of its diagnostic difficulties in its early stages.

Our indigenous scheduled diseases remain much as they were in the early summer. Glanders still shows a slight increase upon last year, and parasitic mange a very considerable one, both probably due to war conditions alone. In neither case is there any cause for anxiety. The figures of anthrax and swine fever remain satisfactory, and those of sheep-scab fairly so. On the whole, we may heartily congratulate the Board of Agriculture veterinarians upon their record of work against scheduled disease through the last four difficult years, and upon the position they can show us to-day. We must not forget that the dangers from scheduled disease are likely to become more serious soon after the war ends than they have been at any time in its duration.

## CHRONIC POISONING OF CATTLE WITH RAGWORT (*Senecio Jacobaea*).

*History.* Seven young Shorthorn cattle—three heifers and four bullocks, about 16 months old, all in fine blooming condition, were, in spring, turned out into a grazing pasture—second year lay. As the season advanced the field was practically covered with large growths of ragwort. In the second week in July, when they were in full flower, they were cut down with the mowing machine and left on the ground. About a month after new and vigorous growths were seen, and at the same time one of the heifers was noticed ailing. She was brought indoors when my son saw her: there was nothing much to be noticed, except she was very languid, had lost her bloom and her fine rounded appearance; temperature normal, no diarrhoea, in fact the faeces were costive—much too stiff for an animal on grass. The only symptom of note was that the visible mucous membrane, inside of the ears, round the anus and vulva were of a deep yellow colour. Owing to the extreme heat of the weather, my son considered the case to be one of bilious fever, and small repeated doses of sulphate of soda, and a few vegetable tonics were given. At present the heifer is doing better, but not up to the mark. The other six were now observed to have lost their bloom, were tucked up in the flank and not doing well.

About the end of August they were removed to a fine flush meadow foggage. On the 16th September, after a very stormy day and night, one of the bullocks was found dead in the field. The case was notified to the police, when I was called. I may here state that this was the first time I had seen the animals.

After certifying that the case was not anthrax, I made a post mortem of the bullock. On opening into the abdomen, a quantity of brownish-yellow fluid was observed; the peritoneal covering of the abdominal viscera had a pale, wasted appearance; the liver was of a slaty blue colour, very hard, (cirrhotic) highly mottled, and gritty on cutting; the gall bladder was about twice the normal size and distended with a yellowish-green watery bile; the lining showed several small dark spots studded throughout. The first, second and third compartments of the stomach appeared normal, except that the cuticular lining stripped off readily in some parts, but the fourth or true stomach was very highly congested, and the internal folds were of a dark bluish-pink colour and much thickened by a submucous exudation. The small intestine also showed several congested patches in different parts; and the urinary bladder was distended with dark yellow urine.

From the condition of the lining of the fourth stomach I concluded that the bullock had been eating some irritant vegetable poison. On investigating the case the cutting of the ragwort was brought out, but whether the animals had eaten the cut, dried plants or the new growths I was unable to find out. I may state that the cut plants grew very fast, and are now again in full flower.

On referring to Lander's Veterinary Toxicology—on Poisonous Plants, pages 224, 225, and H. C. Long's "Plants Poisonous to Live Stock," pages 44, 45, I was convinced that the ragwort was the cause of the trouble. The post-mortem of the bullock agreed exactly with the conditions described by both gentlemen. I may, however, state that there was not, nor has there been, any diarrhoea in these animals. It appears that it is known in Canada as Pictou disease—hepatic cirrhosis. Also in New Zealand it causes considerable disease in sheep; whilst in South Africa, cirrhosis of the liver in cattle—Molteno disease, is also attributed to the eating of one of the plants—*Senecio latifolius*.

I think I am right in stating that it is erroneously considered in the British Isles that ragwort is not injurious to stock; in fact, in order to prevent these growths it is a common practice to put sheep on to the pastures in early spring, just when the ragwort makes its appearance above the ground in the form of a small bulb, before it breaks into leaf. The sheep eat these with much relish and take no harm, but as the plant grows, neither horse, cow, nor sheep seem to touch it. Is it not possible that the eating of ragwort may be the cause of some of the cases of chronic diarrhoea that carries off so many young stocks rising two years old?

Referring to this case, the remaining six stirks have been removed from the rich fog and put on to some old laid grazing land, and the feed supplemented by a little crushed oats and bran with a little salt every morning, and a small foddering of old hay at night. They all seem to be going on nicely, but are far from what they should have been.

Perhaps some of the readers of *The Record* have met with similar cases, and it would be pleasing to have their view. I have related the case as I found it.

Aspatia.

HY. THOMPSON, M.R.C.V.S.

[Poisoning by *Senecio Jacobaea* was referred to in our issues of Sept. 1 and 8, 1917, pp. 89-91, and 105, in connection with cases which had occurred in Ireland. Earlier it was noted by Mr. J. A. Gilruth. We reprint below the essentials of the note on the cases in Ireland for comparison. So far we have not seen any other note of its occurrence: it is probable that cases have occurred, but have been wrongly diagnosed or left unnoted.]

"Poisoning under natural conditions is a slow process, that is to say, an animal does not receive, and could not eat enough of the weed at one meal to cause acute poisoning. The poisoning is cumulative in its action; and with continuous doses the amount of poison which becomes available is sufficient in time to cause very serious symptoms, which often end in death."

"It would appear also that animals which have received a toxic amount of ragwort over a certain period

may seem healthy at the time when feeding on the material is discontinued, may nevertheless develop active symptoms of poisoning, and die at a later period. Thus, in the cases which have been investigated, some of the animals did not show definite symptoms until twelve days or more after the feeding with ragwort has been discontinued.

"In the early stages the animals have the appearance of being hide-bound. Later they walk with a staggering gait, some appearing to be partially blind or heedless of where they go. Later they become very excitable, and will charge at anyone who approaches them. In some there may be diarrhoea, but usually constipation is so marked that it causes violent straining. The pulse is weak and rapid, but the temperature remains normal.

"When death takes place in the earlier stages of poisoning the principal lesions found are inflammation of the mucous membrane of the bowel. The omentum is dropsical. Small hæmorrhages are present under the mucous membrane of the bowel and in the pericardium. In acute cases the liver is firmer than normal and yellow in colour, the yellow colour apparently arising from fatty degeneration of the liver cells. In chronic cases there is cirrhosis of the liver, and in such cases the abdominal cavity contains fluid. This is not unlike what is seen in some animals affected with fluke disease. The lungs are congested.

"There is no cure, and prevention resolves itself into removing the ragwort from the forage or eradicating it from the pastures."

#### PUNCTURED NAVICULAR BURSA WITH NECROSIS OF THE APONEUROSIS.

In reporting these cases, I think the great factor of success was the use of an autogenous vaccine.

The two cases ran a similar course; both had been treated by owners with poultices until the lameness became excessive; when I was called in there was a free discharge of synovia and pus from the wound at side of frog.

Treatment consisted of thinning the sole and frog, and opening the puncture as much as possible. The foot was daily bathed in Jeyes', a carefully applied antiseptic dressing was put on with a leather boot over all. Excessive granulations were kept down with caustic dressing,  $\text{CuSO}_4$ , when necessary.

A swab was sent for autogenous vaccine, and the vaccine given for six consecutive days. There was distinct reaction, lameness and discharge being increased. Two or three days after the finish of the vaccine a portion of the necrotic aponeurosis about the size of a shilling was found in the dressing. After this, discharge gradually became less and complete healing quickly took place.

By the use of caustic and the knife the puncture in sole was kept open, which gave a fairly free exit to the portion of the necrotic tendon.

I do not know if practitioners in this country carry out the classical operation of resection: if so, I have never seen a case reported. It would be interesting to have the experiences of anyone who has done this operation for the cure of necrosis of the aponeurosis.

G. E.

## ABSTRACTS FROM FOREIGN JOURNALS.

## THE PHYSICO-PHYSIOLOGICAL TREATMENT OF TRAUMATIC ABDOMINAL HERNIA IN THE HORSE.

G. Mullie, in the *Recueil de Médecine Vétérinaire* for 1917, relates three observations upon cases of hernia of this class. The results of his treatment enable him to conclude that certain abdominal hernias may be treated easily and efficaciously by the elevation of the posterior third of the body and the observation of a reduced diet. This treatment is especially applicable to cases of traumatic hernia with posterior localisation and with a hernial ring of narrow diameter.

The position, declining from behind forwards, which is given to the horse during the treatment, by its mechanical effects permits the intestinal mass to be directed and drawn towards the antero-inferior region of the abdomen. These effects may cause the spontaneous reduction of the herniated mass, and the consequent cicatrization of the abdominal traumatism. The concentration of the diet, by diminishing the volume of the gastrointestinal mass, is a powerful aid in obtaining the desired result.—(*Revista de Higiene y Sanidad Pecuarías*).

[This treatment seems well worth trial in suitable cases, especially if there is a doubt whether operation is economically advisable.—*Transl.*]

## A TEST OF THE PRESENCE OF DEATH.

The difficulty of ascertaining death with certainty before signs of putrefaction appear is well-known; and, though the subject is not so important in veterinary work as in human medicine, it is not without moment to veterinarians. Dr. Lecha Marzo has discovered a very simple method, based upon the acidity which the parenchymas, blood, and lachrymal secretion acquire in the dead subject. The test is made by placing a strip of neutral or blue litmus paper under the eyelids for some moments. In the dead subject the paper becomes red; in the living it is blue.—(*Revista de Higiene y Sanidad Veterinaria*).  
W. R. C.

## A REPORT UPON AN OUTBREAK OF FOWL TYPHOID.\*

By WALTER J. TAYLOR, Assistant Professor of Veterinary Science, College of Agriculture, University of California.

Although fowl typhoid has been recognised as such in but few instances in the United States, we believe that in many cases of so-called fowl cholera, fowl typhoid was the real cause of loss and was not recognised because this disease had not received the attention accorded to fowl cholera.

Attention was first called to this disease in 1894 by Theobald Smith who found it to be present in Rhode Island. The following year Moore studied the same disease in Virginia, and the first graphic account of an organism as a causative factor coupled with a description of the symptoms, morbid anatomy and the specific organism was presented by him at that time. He isolated and described an organism which he named

*Bacterium sanguinarium*, and which he showed to be the causative factor. He suggested the name "Infectious Leukemia" for the disease. Further investigation, however, has shown that the disease is not a true leukemia, but rather a leucocytosis brought about by the infecting organism. Curtice studied an outbreak of the disease in Rhode Island in 1902 and gave it the name of "Fowl typhoid." This latter nomenclature seems to be more applicable and was accepted by Moore in a later publication. In 1913 Pfeiler and Rehse described the organism anew under the name of *B. typhi gallinarum alcalifaciens*.

A brief history of the outbreak which led to the investigation of the disease in California is as follows:—In the spring of 1912 a poultry raiser in San Francisco lost several fowls rather suddenly from a disease which seemed to occur sporadically, but which did not spread to other members of the flock. The birds of the flock were kept in small lots of 12 to 25 each. Seven or eight mature hens succumbed to the first attack. A post-mortem revealed yolk of eggs in various stages of development and all appeared to be ruptured. Considerable yolk substance was also present in the abdominal cavities of the birds. The owner informed the writer that he attributed the cause of death to "broken eggs," and thought nothing further about it. The carcasses were buried in one of the yards where the dirt was loose and no further trouble occurred during the year.

At the time our attention was first called to the disease the owner gave the following history:—

"On May 5, 1913, I had 70 hens and pullets one year old and over, 6 breeding males, and 260 chicks of various ages. The birds commenced to die about the 7th or 8th of May, 1913. The first to succumb were laying hens which had been allowed to run outside the yard and had access to the burial place of those which died last year. The birds did not seem to become affected in any regular sequence, but came down in bunches of 6 to 10 at a time and at intervals of several days. The yolk condition noted in those which died last spring was present, also a peculiar pale condition of the kidneys which led me to suspect poisoning. The birds having been given quite a quantity of water cress for green food, I attributed this as the cause of death, because the contents of the intestines had a more or less greenish tinge.

"An interval of two weeks elapsed before any more birds showed symptoms, and these were observed more closely. The first symptom noticed was the drowsy or sleepy appearance of the affected birds. Soon after, the droppings became soft and of a yellowish colour, occasionally streaked with green. They were especially green from one male bird. The birds showed a disposition to stay on the roost, unwilling to move about, sleepy most of the time, head down into the ruff or hanging pendent. They would be sick for 5 to 10 days then die. Both males and females were affected.

"Post-mortem examination showed kidneys to be from clay to terra cotta coloured, sometimes streaked with red showing capillary congestion and the ureters were filled with a semi-solidified urine. Quantities of free yolk were present in the abdominal cavity of the hens and occasionally the mesentery would be dotted with dark spots. Still believing the birds to be dying from some form of poisoning especially affecting the kidneys, I sent the backs containing the kidneys from several birds to the chemical laboratory for analysis, but no evidence of poison was found."

It was at this time that the writer was asked to make an investigation of the disease. On visiting the place, July 25th, we found about twenty-five birds consisting of Rhode Island Reds, Barred Rocks, and White and Brown Leghorns, both male and female. Nine Rhode Island Red hens were sick at the time. The runs and houses were dry and free from any decaying matter.

\* Presented at the meeting of the A.V.M.A. Section on Sanitary Science and Police, Oakland, Cal., Sept., 1915.

The sanitary conditions were far above the average. The roosts and dropping boards were clean and the dropping board had been freshly dusted. The nine affected hens were housed by themselves and showed the same symptoms as those already described. They had been affected three or four days at the time we saw them. The most striking symptom observed at that time was extreme sleepiness and a tendency to remain on the roost. Diarrhoea was present in about half of the cases. No young birds were seen, as they had been sold for slaughter in an attempt to reduce the economic loss as far as possible. Only a few of the younger birds had died. They appeared to be less susceptible to the disease than the mature fowls.

In the young chicks, however, the disease seemed to be very rapidly fatal. A large percentage of several hatches died in from a few days to several weeks of age, all showing the same symptoms observed in the older birds, and upon post-mortem no pronounced lesions were found, save a peculiar paleness of the intestines and kidneys.

Disinfection of the pens was advised, also permanganate of potash in the drinking water. Instructions were left to send the first dead bird to us for examination.

*Post-mortem notes.* July 31. Adult Rhode Island Red hen in good condition. Died on twelfth day after symptoms appeared. Comb and skin about head pale and anæmic. Visible mucous membranes pale. Peritoneum pale, and showed a yellowish exudate. Intestines pale, contents normal, oviduct somewhat congested. Numerous egg yolks present, varying in size from one to two millimetres in diameter. Some of the larger yolks ruptured. Liver slightly enlarged, very friable, dark red in colour with darker red markings occurring in streaks. Indistinct areas of necrosis one to two millimetres in diameter, colour of clay evidently under liver capsule. Kidneys swollen, of a clay colour with a few narrow red streaks on the surface. Spleen slightly enlarged, lungs normal, heart muscle pale with a peculiar irregular mottling of a light gray colour. Blood of heart all contained in auricles very thin and watery.

Cultures were planted on slant agar from liver, oviduct and heart blood. In 24 hours the cultures from the liver and heart blood showed a growth of a short rod-shaped organism, 1 to 2 microns in length with rounded ends. It grew singly or in pairs. It took the aniline stains but feebly showing a dark periphery and lighter centre. It did not take the polar stain shown by certain species of the *Pasteurella* group. Cultures from oviduct mixed.

(To be concluded.)

#### MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

[NATIONAL V.M.A.—NORTHERN BRANCH.]

The quarterly meeting was held at the Grand Hotel' Birmingham, on Wednesday, Aug. 29. Mr. J. Malcolm' President, occupied the chair; and the other members present were:—Messrs. J. J. Burchnall, J. W. Conchie, J. Cormack, Gascoyne, F. L. Gooch, J. Martin, A. Over, T. Slipper, F. V. Stewart, R. C. Trigger; Capt. J. T. Whyte; Messrs. S. M. Woodward, J. Young, and H. J. Dawes, Hon. Sec.

Apologies for unavoidable absence were received from the following:—Messrs. F. B. O. Taylor, T. Thomson, S. J. Marriott, C. Parsons, R. L. Phillips, T. J. Brain, P. C. Woolston, W. E. Ison, G. F. Prickett, C. E. Dayus, R. Hughes, T. Ludlow, A. B. Forsyth, R. Over, and others.

The minutes of the previous meeting were read and confirmed.

#### The late Mr F. H. Gibbings.

The Hon. SEC. said it seemed lately to be their inevitable lot to mourn the loss of one or other of their members. Since they last met, Mr. F. H. Gibbings had passed away, and he was sure they would like to place on record their deep sense of the loss which the Association and the profession generally had thereby sustained. Mr. Gibbings had not only filled the office of President, but had regularly attended the meetings and won the admiration of the members by the good sense and sound judgment he at all times displayed when participating in their discussions. He moved that a letter of sympathy be sent in the name of the Association to the family.

Mr. BURCHNALL, in seconding, said that he and Mr. Gibbings were fellow students and passed out of College the same year. He was a warm hearted friend, and the news of his death came to them all as a sad blow.

The motion was carried in silence.

#### REPORT OF COUNCIL.

The Council sat immediately prior to this meeting. The report contained a recommendation that the arrangements for the next quarterly meeting be left in the hands of the President and Hon. Sec. The question of fees was raised and it was decided to refer it to the general meeting. [The report was adopted.]

#### THE VETERINARY TRIBUNAL.

The PRESIDENT referred to the compliment recently paid to the Hon. Sec. in appointing him a member of the Military Tribunal which had been set up to hear applications for exemption by veterinary surgeons. No man, he said, was better qualified to act in that capacity than Mr. Dawes, on whose sense of absolute fairness they might implicitly rely.

Mr. DAWES thanked the President for his remarks. He said he felt it his duty to accept the honour, because his long official connection with this Association had brought him into personal contact with so many veterinary surgeons.

#### THE REVISION OF FEES.

The Hon. SEC. reported the result of correspondence between himself and the National Veterinary Association on the subject of increasing their fees in view of the higher cost of living, the extra cost of drugs and transport, etc. The Association invited all affiliated bodies to discuss this question and to communicate their views to them, with the object of some joint action being taken, if possible, by the whole profession.

Mr. TRIGGER showed the meeting a circular which had been placed in his hands, signed by the practitioners in a particular district, in which an increased scale of charges for visits, operations, inspections, medicine, etc., had been decided on. The new scale was duly specified.

Capt. Whyte, Messrs. Woodward, Gooch, Conchie, Young, Martin, Gascoyne, Cormack, Stewart, Trigger, and the President and Hon. Secretary took part in the discussion.

Eventually, Mr. Gooch proposed that a report of this discussion be sent to the Council of the Royal College of Veterinary Surgeons, and to the National Veterinary Association with an expression of this Association's opinion that it is desirable in the present circumstances that the fees of veterinary surgeons should be substantially raised, and that a note to this effect be inserted in the leading agricultural papers.

This was seconded by Mr. Cormack, and carried unanimously.

#### CASE NOTES.

Capt. WHYTE mentioned an unusual case of a breech presentation in a heifer. He raised the hind quarters by means of a block and pulley and ropes attached above the hocks. It was then not difficult to put the



fœtus back, but it required considerable force to bring it away—the force of four men. He then found on examination a big rupture in the superior surface of the vagina. He told the farmer it was a hopeless case; and was surprised to hear afterwards that she had made a good recovery. He attributed that to the fact that the after-birth came away immediately after the calf; otherwise there must have been septic infection.

He mentioned two remarkable cases of animal intelligence. A blind mare lost her foal, which had got into a thicket, and she came close up to the house and neighed, thus drawing the owner's attention to her trouble.

He also saw a heifer which was in the habit of pushing her tongue through the finger hole in the door, and raising the latch to let herself into the shed. The other cows used to make way for her to come up and do this.

Capt. Whyte also related some of his recent experiences in France. He was at one time in charge of an infectious ward and a case was handed over to him as one of strangles. It made no progress until one day he removed a piece of shell, and a quick recovery followed.

On another occasion he had to treat a very vicious horse suffering from grease. It could not be attended to in the ordinary way, and no one dare go near it. He put it into stocks, clipped the hair off, washed with soft soap and a solution of calcium sulphide, and afterwards applied a solution of chloride of zinc. He afterwards sprayed the hind legs twice a day, and it made a complete recovery. He came across many cases of grease, and the veterinary sergeant told him the animals did better in the sunshine, where the sun got on the legs all day. He tried that with good results, the sun apparently having a drying effect on the legs.

At one time the weather in France was so hot as to be hardly endurable. One afternoon he was sent for to another Company to see a horse that was very ill. It was delirious, staggering about, and unable to stand. He diagnosed it as a case of heat stroke. The temperature was so high that it burst his thermometer, which registered 100 degrees. He borrowed a bigger thermometer, inserted it and watched it, and the mercury went up to the very top. The animal died 20 minutes later, and when he put his hand into its mouth it was like putting it into very hot water. There were other cases the same afternoon, but not so bad, of course. An hour afterwards there was a thunderstorm; he had the animals tied out in the rain, and next morning they were all right.

He also met with a great number of cases of spavin in France. He tried the Dickerhoff treatment. He used the hot iron and burnt a hole in the centre of the spavin, varying the depth according to the size of the size of the spavin, and made a few small holes round about. He did not blister, but applied a little antiseptic ointment, and except for one mule, every animal recovered.

The Hon. Sec. said he had a very curious case now under treatment. There was a severe thunderstorm, and the groom saw nothing wrong with the patient at the time (a valuable cart horse of high courage), but next morning he noticed it was dull. He (Mr. Dawes) was sent for, and when he got there he found the horse was deaf and blind and very stiff in its movements, and no action of its bowels for a couple of days. A little aloes was given and the bowels responded, and after a fortnight a peculiar thing happened. It looked as if the horse was suffering from mange, from the appearance of its coat. The hair began to come off, and in three weeks or a month the whole of the body was as bald as the back of one's hand. Mr. Malcolm saw the horse and could corroborate what he (Mr. Dawes) said. In a fortnight the hair began to grow, and the animal now had a very good coat. It could also see and hear all right, and it had now been turned out with every prospect of

a good recovery. It was extremely tender in the region of the poll, which seemed to be slightly swollen, though there were no marks of injury or of the animal having been struck by lightning.

He mentioned a case of a mare foaling in which, when he arrived the foal's head and neck were protruding through the anus and the feet through the vagina. It looked a hopeless mess. He pushed the head back again and delivered the foal, which was alive and did well. There was an immense rupture. He was surprised to find that the mare did very well for about two months. At the end of that period, the attendant found her dead. Whether it was a result of the rupture he had been unable to ascertain. The remarkable feature of the case was that the mare should have lived at all in the circumstances.

Mr. CONCHIE said a client once asked him to take a cleansing from a cow which had calved two days before. The cleansing came away, and a week later the owner asked him to look at the cow again. She did not get any better, and he afterwards put his hand in to feel if any of the cleansing was left, and all he found was a great rupture in the uterus.

On another occasion a client sent for him to see a mare which had a very bad humour. The leg was swollen in two or three places. Some pus worked through the vagina. A fortnight later, what appeared to be a core had come between the stifle and the hock. Examination proved that it was a piece of bone (which he now showed to the meeting). The mare had done some chain work and it was supposed that through carelessness on the part of the lad in charge she had injured herself in some way.

Mr. TRIGGER said he had found in parturition the most frequent cause of tearing was the breech presentation. The cow died, to the veterinary surgeon's surprise, after she had apparently gone on well. That made him wonder, and he sought the cause. He found that the bone of the hock cut like a knife, going straight through. He had proved that by blood-stained markings on both hocks. That accounted for many ruptures. He had only had two or three recoveries when there was rupture of the womb. With regard to raising the cow's hind quarters, he regarded it as a risky experiment, although, of course, it might be used in moderation.

On the subject of animal intelligence, Mr. Trigger mentioned the case of a pit horse which, the moment "loose it" was called (the signal to finish work in the pit) would not do another stroke of work. Yet during ordinary hours a better working horse never lived.

Mr. OVER produced for inspection the mummified fœtus of a calf in exceedingly small compass.

Mr. GOOCH said he had in his possession two fœtuses of a similar type which were in the cow for a year and eleven months. He thought the cases of rupture that recovered were those where the rupture was in the superior portion of the uterus.

Last Thursday, continued Mr. Gooch, he was sent for to a valuable Shire colt, for which the owner has refused 165 guineas. He came to the conclusion that it was suffering from impaction through eating new oats. The horse was not tympanitic, but was full of pain. He treated the animal and was sent for again in the evening. To his astonishment he noticed what appeared to be a displacement of the double colon. He was tempted to puncture, but did not do so. Later in the evening he punctured, the animal being much worse, but the enormous pressure in the rectum was not relieved. He punctured from the rectum and was able to manipulate the bowel. He thought there was a half twist of the double colon. The moment the gas was out the colon resumed its proper position and the whole of the flatulence went out. Next morning there was distension of

the left side. He punctured again. The pulse was over 100 and the temperature 102. There was no action of the bowels, and on Saturday he injected eserine subcutaneously. On Sunday morning he removed six or seven pieces of very hard fæces. Although there was a rise of temperature, he believed the animal was going to recover. He used a long trocar. He was of opinion they commonly used too small a trocar and canula. If he had a similar case again he should not hesitate to puncture at the rectum with the same trocar.

Mr. MARTIN mentioned the case of a farmer who bought a heifer and walked it home several miles. He (the speaker) was sent for, as there was something the matter with the animal, and he noticed tympany. The animal died, and the *post-mortem* revealed a twisted uterus. There were gallons and gallons of fluid which had accumulated there as a result of the injury. With regard to breech presentations, he never hesitated to sling either mares or cows.

Mr. Young produced for inspection a cystic tape-worm found in a Belgian hare.

Mr. SLIPPER said that last spring he had two unusual cases in dairy cows which were seen by Mr. Malcolm. There were swellings in the throat, neck, withers, and fore legs. One animal died and the other was killed. There was no injury that he could see in any way.

This spring he had three cases, in a haulier's stable, of paralysis of the pharynx. They could not swallow, and just starved to death. He was wondering whether the food had anything to do with it. They were having mouldy hay and a large quantity of vinegar grains, which were not fresh, but had been allowed to lay in a lump in the stable.

He also mentioned a case of twisted uterus in a mare. He cast the mare, rolled her, when the twist was reduced, the foal came away and the mare made a good recovery.

Mr. WOODWARD produced the skull of a fox terrier which had suffered for some time from absorption of the bone, the bone being replaced by a sort of cartilage. He had three cases altogether, all in the same district. He had never seen such cases before.

The PRESIDENT said he thought they might congratulate themselves upon a very profitable exchange of experience. With regard to the use of the spray in the treatment of grease, referred to by Capt. Whyte, he thought it was also now commonly used in the treatment of mange. It could be left to an intelligent stableman to undertake, and he had himself found it very efficacious. With regard to twist he had seen more cases than he wanted to see, and it was generally associated with impaction of the stomach. Limiting the food to the proper quantity was, he thought, a good preventive, and one which could not be dwelt upon too strongly. Since he had given those instructions he had reduced the number of cases to a minimum. The cases mentioned by Mr. Slipper were certainly very interesting, but he could not explain them.

#### A.V.C. COMFORTS FUND.

The HON. SEC. said a copy of the report of the Army Veterinary Fund had been received, together with the reminder that the good work was still being carried on. He thought the Association would be quite willing to subscribe again, and he suggested that last year's subscription of five guineas be renewed.

Mr. TRIGGER thought that after advocating a 25% increase on their own fees they ought to make a similar increase in the case of this subscription. He knew the Fund had done a great amount of real good and was very much appreciated.

Several members spoke to the same effect, and all warmly commended the Fund.

The HON. SEC. said he was quite willing that a sub-

scription of seven guineas be made by the Association to the Fund.

This was seconded in several places, and carried unanimously.

The members then adjourned for tea before dispersing.

H. J. DAWES, F.R.C.V.S., Hon. Sec.

#### THE EDUCATIONAL VALUE OF ENGLISH.

The note on "The value of the study of English" is taken from a review by E. H. Starling, F.R.S., Prof. of Physiology, University College, London, on the Report of the Committee on "The position of Natural Science in Education," under the presidency of Sir. J. J. Thomson, F.R.S.

"Once we have rationalised our educational aims, natural science will fall into its proper place. But this place is not first in the educational hierarchy. It is universally accepted that the 'three R's'—reading, writing, and arithmetic—must form the groundwork of elementary education. We do not recognise in this country that training in language and expression is a necessary precedent and accompaniment of all other education, and that we need a training in the use of our own language not inferior to that given in French in the schools of our Allies. Without appreciation of language clearness of thought is impossible, and literary form is one of the best guarantees of good reasoning. But no training in mere language is sufficient or profitable unless the mind is supplied with material to work upon.

A proper training in language as the expression and symbol of things, the relations of things, the relations of men, and finally of the feelings of men, while promoting accuracy of thought and judgment, will minimise the hypnotic influence exercised on the inarticulate by meaningless catchwords and party cries.

The very fullness and perfection of the English language make it, perhaps, the most difficult to master, even by those who are English by birth and upbringing. Most of us have felt how the defect in our school training in English, or its absolute default, continually impedes the expression of our ideas, and prevents any rise out of the ruts of the commonplace. Even a scientific article could and should be beautiful in its fitness of expression, and it will not lose in its usefulness if it pleases the ear as well as satisfies the reason. The majority of our generation have not advanced in the writing of English beyond the stage which, under any proper system of education, ought to be attained by an intelligent boy of 14. But if by this age the boy has learnt not only to express himself with form and propriety, but had also studied the structure and origin of his language and the meaning of the roots, especially Latin and Greek, of the words which he uses, he could begin at 14 the study of Latin as something already half familiar to him, and in a couple of years could attain such a knowledge of this language as is at present reached only by a small minority after six or eight years of stupefying drudgery. Better still if, as Mr. W. Johnson advised in Sir Ray Lankester's volume of essays, he had learnt French with his English. Each language would teach appreciation of and help in the study of the other, and the boy would be ready to play some part in the inter-Allied activities which will replace, we hope, for the next hundred years the present reign of destruction, terror and pain.

The value of the study of English is strongly emphasised in the Committee's report, which also points out the advantage from a practical standpoint of a knowledge of modern languages. But the report is chiefly and properly concerned, not with the reform of education as a whole, but with the changes necessary to give to the study of natural sciences its proper importance in the general scheme of instruction."—*The Lancet*, Sept. 14.

## ARMY VETERINARY SERVICE

War Office, Sept. 24.

The King has been pleased to approve of the following awards in recognition of gallantry and devotion to duty in the field:—

## THE MILITARY CROSS.

\* \* \* \* \*

Capt. MICHAEL FRANCIS O'SULLIVAN, A.V.C., S.R.—Seeing hostile shelling near the neighbouring wagon lines, he rode over to assist, and in spite of heavy shelling got all horses to safety in the coolest manner. Next night he gave great assistance in getting all ammunition away from a dump under constant shell fire. On more than one occasion subsequently he volunteered for duties of a hazardous nature.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Sept. 27.

## REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Hon. Capt. to be temp. Capt.:—E. C. Winter, F.R.C.V.S. (Sept. 6).

Oct. 1.

To be actg. Maj.:—Capt. R. C. G. Thwaytes, whilst holding the appt. of Asst. Dir. of Vety. Servs. (Oct. 5, 1917); Temp. Capt. G. Sutton, F.R.C.V.S. (Dec. 25, '17).

Temp. Lt. to be temp. Capt.:—V. Franklin (Aug. 14).

Oct. 2.

Maj. G. P. Knott to be actg. Lt.-Col. while holding the appt. of Asst. Dir. of Vety. Servs. (June 16, 1917). (Substituted for notification in *Gazette*, Nov. 19, 1917).

Temp. Lt. to be temp. Capt.:—H. V. Dier.

## SPECIAL RESERVE OF OFFICERS.

Oct. 3.

Lt. to be Capt.:—J. W. Beaumont (Sept. 18).

India Office, Oct. 1.

The King has approved the promotion of the following Officer of the Indian Defence Force:—

Vet. Lt. to be temp. Vet. Maj.:—K. Hewlett (Oct. 2, '17).

## Acorns as a Cattle Food.

The following are from a column in *Farm and Home*, over the initials J. P. D. Some details are given as to quantities and methods which may be of use in these days of food substitutes: they are a distinct advance on the usual generalities on the subject.

There is a difference in foraging for acorns and receiving them clean and together in a feed. In the fields intervals occur between the finding and eating, so that there is time for mastication, and there is the exercise and fresh open air to be taken into account. Acorns should not be fed to swine in confinement or to sheep in folds. A sow with, say, nine or ten suckers six weeks old might receive a couple of gallons a day in two servings, the acorns being scattered on the straw; older pigs in proportion. A pint a day for each sheep thrown on the pasture, or in troughs if they are on roots, would be a good ration. Fowls and ducks do well on them, and half-a-pint in two servings would be sufficient without other food, when they are at liberty: half the quantity supplemented with other food would be enough if they are confined. Acorns are said to cause the eggs

to become dark and discoloured. I do not consider it necessary to kibble them, although at first it might be necessary to crack a few until the taste for them is acquired. My hens eat them whole; but they have a free run, and their eggs have not been affected.

As the collected acorns are brought in they should be shot on the floor, under cover, spread to a depth of about six inches, and allowed to remain some days, until they "spear." When the shoots appear they should be spread out quite thinly on a dry floor where there is a draught, the barn floor is generally a suitable place, and be turned over from time to time, until dry. This really amounts to malting, and greatly improves the acorns. They may be thrown into a big heap when dry, and will keep till summer. Acorns must not be heaped up when first collected, or they will heat and mould.

## Grading for slaughter—charge dismissed.

At Newcastle Police Court, on Tuesday, 1st inst., George Storey Moffatt, farmer, Field House, Acklington, was charged with having sent into Newcastle for sale a heifer, which was to his knowledge diseased and unfit for human food on August 20.

Mr. Frank Kirby, from the Town Hall, who prosecuted, said the animal was slaughtered, and found to be in an advanced stage of tuberculosis. The carcass was condemned by a magistrate.

Inspector Parker admitted, in cross-examination, that instructions had been issued by the Ministry of Food that manifestly diseased animals might be placed in Grade IV and sent to a Government slaughter-house.

Mr. T. Lisle Maughan, on behalf of Mr. Moffatt, said his client had only done what other farmers had done in this and other counties. They had been pressed by the Ministry of Food to exercise all economy in the way of foodstuffs, and to see that nothing was wasted. It was a well-known fact that diseased animals had a value to the country in respect of offal, etc. What he did with his eyes open; there was no attempt at concealment. He did not subscribe to the view that this animal was an obviously diseased animal.

Defendant said he owned something like 300 cattle, and sometimes he had doubtful animals. This was one, and he felt that the best thing to do was to send it to the Government slaughter-house. It was never in his mind that any animal that he thought was not fit for food should be sent away to be used for food. He had only acted according to instructions as issued by the authorities.

The Bench dismissed the case.—*Evening Chronicle*.

## Utilisation of Plum-stones for Oil in Germany.

Examination of the stones of plums, cherries, peaches, and apricots gave the following results:—Air-dry stones in plums, 4.1 per cent.; in cherries, 7.7; kernels in plum-stones, 12.6 per cent.; in cherry-stones, 22.9; in peach-stones, 5.7; in apricot-stones, 29.2; oil in plum-kernels, 37.38 per cent.; proteids, 23.78; in cherry-kernels, 38.71 and 28.01; in peach-kernels, 45.45 and 26.01; in apricot-51.43 and 28.36. Yield of oil from plum-stones, 3 to 4.3 per cent.; from cherry-stones, 4 per cent. Germany possesses 21 million cherry trees and 69 million plum trees, and the utilisation of the stones should therefore pay well. The stones can be cracked in a mill and the kernels separated by a solution of magnesium chloride or other salt of specific gravity, about 1.15, in which the kernels float. Plum-kernel oil will keep for years; cherry-kernel oil becomes slightly rancid.—K. Alpers (*Pharm. Ztg.*, vol. 63, p. 354, *ex Pharmaceutical Jnl.*)

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

J. G. Cattell, I.C.V.D., Karachi, India	£1	1	0
William Fawdington, York	1	1	0
Walter Gardner, Colmonell	2	2	0
W. H. James, D.S.O., Maj. A.V.C.	1	1	0
C. J. R. Lawrence, Capt. A.V.C.	1	1	0
Harold Leeney, Capt. A.V.C.	1	1	0
H. P. Standley, Norwich	1	1	0
William White, Birmingham	1	1	0
Eastern Counties Vety. Med. Assocn.	5	5	0

Previously acknowledged 1006 2 11

£1020 16 11

## THE R.C.V.S. LIBRARY.

Dear Sir,—Your leader on the above subject is very timely. Has not your tale of Rivolta a moral in it which, being extracted, amounts to the stressing of the French motto—"aide toi et le ciel t'aidera"?

There may be other more important and urgent affairs than the welfare of the R.C.V.S. Library, but the ignorance in the profession concerning it must be appalling. How many of our members know what volumes are in it or how to obtain a sight of them? When was a library list ever published? Of course, we shall be told that there isn't enough money to publish one. If there is not, the natural corollary is to ask the profession for the money. I venture to write that it will be forth-

coming if this is done; and if it is not, then the library ought to close its doors and sell out. A real live profession will have a real live library—with liberal rules and regulations.—Yours faithfully,

G. MAYALL, M.R.C.V.S.

## CAMEL FEEDING EXPERIMENTS.

A correspondent writes us emphasising the fact that the experiments quoted (*V.R.*, Aug. 24, pp. 61, 62,) were carried out on camels which were suffering from Surra, and are therefore not reliable. This was pointed out in two places in the report, but possibly this reminder is not unnecessary.

## PATENT MEDICINES.

"By Royal appointment."

Registered Trade Mark—

"Disease has found its master."

I live in a small country town, and on each Market Day a representative of the above firm arrives—his first business is to visit all the hotels and public houses and distribute in the most conspicuous places the enclosed literature, not forgetting to place a nice blotting-pad on the writing table, with all the advertisements stamped across.

I can only say that if we have not a Veterinary Surgeon in the profession who is capable of making up a little stock medicine for the Royal Stables and Royal Homesteads the sooner we shut down the Royal Veterinary College the better.

"A COUNTRY PRACTITIONER."

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Rabies: Sept. 7th 1; Sept. 28th 6 (dogs); other animal 1. confirmed.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	(a)		(a)		(b)		(b)		(b)	(a)	
GR. BRITAIN.											
Week ended Sept. 28	3	3	1	8			17	30	1	14	7
Corresponding week in											
1917 ...	6	6			1	1	15	20	4	18	9
1916 ...	8	8			1	3	11	22	6	60	29
1915 ...	6	6					9	20	2	27	118
Total for 39 weeks, 1918	189	219	1	8	25	67	3592	6792	260	1065	428
Corresponding period in											
1917 ...	348	396			20	85	1957	3789	404	1793	782
1916 ...	400	471	1	24	41	101	1758	3250	195	8536	8768
1915 ...	442	508			38	68	1632	11365	169	3163	18920

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Oct. 1, 1918

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND. Week ended Sept. 14		...	...	...	...	...	...	Outbreaks	1	4	...	...
Corresponding Week in		1917 ...	...	...	...	...	...	...	...	5	3	6
		1916 ...	...	...	...	...	...	...	2	9	4	52
		1915 ...	...	...	...	...	...	...	2	9	5	32
Total for 37 weeks, 1918		...	2	2	...	...	...	...	99	208	21	63
Corresponding period in		1917 ...	3	5	...	...	1	1	39	281	185	1079
		1916 ...	3	7	...	...	...	...	54	801	234	1358
		1915 ...	1	1	...	...	1	3	56	305	186	1037

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Sept. 16, 1918.  
NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1579.

OCTOBER 12, 1918.

VOL. XXXI.

## THE COUNCIL MEETING.

The proceedings in Council last week were full of solid business; and the report shows that the war has added heavily to the work of our representatives.

Some of the business related to preparations for the after-war period, which, in view of the present position, are perhaps the more important. Among these, if adopted, the recommendations for financial assistance to students may do much to re-inforce the supply of young graduates. Some special exemptions from examinations are also made, the effect of which will be in the same direction. Efforts for the release of students now serving are still going on, and, it is to be hoped, on all counts, may prove successful.

The financial position is as pressing as ever; and the Treasurer's few words upon it, with his estimate of the annual requirements of the College, put the matter squarely in front of us all. We have still much to do, if an adverse balance at the end of the year is to be averted.

As usual—and we regret to have to use the adverbial expression—the Councilmen were too few to act upon the recommendations of the Registration Committee. This repeated delay in Registration work is not creditable.

The report of the Sub-Committee upon the South African Veterinary Surgeons Bill is important. In some directions the Sub-Committee offers valuable suggestions, as, for instance the desirability of the imposition of a registration fee, the position of South African students now attending British Colleges, and the period allowed for our members to give notice who desire registration in South Africa. The question of the South African registration of our members in the future is much more difficult and serious. Clearly, our Council cannot promise to recognise any diploma that may become recognised in South Africa; and the matter is pre-eminently one for adjustment. The suggestion advanced by the Sub-Committee seems a sensible solution of the difficulty.

The General purposes Committee dealt with the letter from the Midland Counties V.M.A. on the necessity of raising the scale of professional fees. It is a matter over which the Council can have no direct control, but they have supported the action of the practitioners as far as they were able by an instruction to the Secretary to reply "that this Committee concurs in the opinion expressed by the Midland Counties Veterinary Medical Association," and the report was subsequently adopted by the Council.

Lastly, it is gratifying to note the award of the Steel Medal to Dr. Griffith Evans, and to read the

accompanying tribute by Maj.-Gen. Blenkinsop. Dr. Evans made his momentous discovery of the first pathogenic trypanosome so far back as 1880; but, though no one has ever disputed his priority, he has received singularly little recognition for work the value of which has long been universally acknowledged. The Steel Medal is all that the Council has to give for such work; it was first awarded in 1897, and it is almost incomprehensible that it should have taken the Council 21 years, and an award by another body—recently announced—to acknowledge the value of this piece of independent research. All members will endorse the award, and join in congratulating the long-retired veteran upon it.

## THE VETERINARY TRIBUNAL.

The first meeting was held on Wednesday, 2nd. A brief report will be found at p. 121. These meetings are open to the public, in common with those of similar bodies. The next will be held on Friday next, the 18th, at the Royal College of Veterinary Surgeons, opening at 2.30 p.m., not as stated at p. 121.

## PROPRIETARY REMEDIES.

A correspondent this week refers to this perpetual sore in another phase—the practice of some men to follow the lines of the advertising firms in the matter of flamboyant and lying labels. It is obvious that without the government stamp, the term "Patent" is misapplied. It is also obvious that the claim to cure a variety of diseases in different animals is an impossible one, and that the sale under these pretences is a fraud and the perpetrator a swindler. The term "quack" is far too loose a definition where serious issues are at stake. It seems more fitting to a stage comedy than to actual life, since it carries a certain tolerant contempt of the individual rather than the condemnation of a cruel deceit.

That some proprietary remedies have proved a distinct benefit is unquestionable—probably no better example can be quoted than Dr. Collis Browne's "Chlorodyne." And no exception can be taken to legitimate profits on such productions.

The practice of using flaring labels, in imitation of manufacturers of specious preparations of foods, medicines, condiments, etc., is not to be commended. They are examples of two arts—advertisement, and lying: and except amongst illiterate folk, they are calculated to lessen that confidence and esteem in which the practitioner should be held by his clients.

## ABSTRACTS FROM FOREIGN JOURNALS.

## OVINE CYSTICERCOSIS.

Ransom published an important article upon this subject in *The Journal of Agricultural Research* for 1913. For nearly half-a-century ovine measles was considered as a scientific curiosity rather than as a parasitic affection capable of causing real disadvantages. Authors upon food inspection have attached only the slightest importance to it. It is an error, however, to believe that the affection is rare; for it is much more common than porcine cysticercosis, which is a disease almost unknown in the United States. When ovine cysticercosis has been carefully sought for, it has been found in a proportion of 2 per cent. In 1912, it was found in 20,000 sheep. It need not be said that if more systematic researches were undertaken, the proportion would augment considerably.

At first it was believed that this parasite of ovines was *C. cellulosa*. When the disease was discovered in America, researches were made upon it, and the conclusion was quickly reached that the parasite is not *C. cellulosa*, despite its resemblances to it, but really the larval form of a tapeworm of the dog, to which Ransom gives the name *Taenia ovis*. The question, therefore, becomes much less important from the point of view of meat inspection; but it is not at all negligible, for the flesh may be depreciated or rendered unsaleable by the abundance and size of the cysticerci.

At first a diagnostic error was made with regard to specimens sent to Washington. From this it followed that, of 4,537 sheep slaughtered at Seattle, 79 were seized in the belief that they were affected with *C. cellulosa*. Similarly, 224 sheep were condemned at Chicago. The error quickly became apparent; for it was inconceivable that the *C. cellulosa*, which is so rare in the pig in the United States, only amounting to a dozen cases a year in hundreds of thousands of pigs slaughtered, should prevail to such an extent in sheep. The truth was elicited by experiments upon seven dogs. Five of these ingested ovine cysticerci; and the other two ingested the *C. tenuicollis*. All the dogs, before ingesting the parasites, received castor oil; and their faeces were examined. In this way the new tapeworm was differentiated.

As there is no transmission to man, the inspection need not be too severe. Where the infestation is only slight, seizure of the affected regions is sufficient; but if the cysticerci are in excessive numbers, rendering the flesh repulsive, total seizure is necessary.

The parasite especially affects the inter-muscular connective tissue. It is found frequently in the heart, the diaphragm, the masticatory muscles, and the tongue. It may be found also in the lungs, the walls of the oesophagus and stomach, and perhaps very exceptionally in the kidneys and liver.

The cysticerci are usually in a condition of degeneration at the end of three months.

It is possible for the parasites to escape the most attentive inspectors; but the disadvantage from this is very slight. Too severe regulations, order-

ing the destruction of all affected carcasses, would mean an enormous economic loss. Careful search may reveal from 1% to 5% of animals affected.

The prophylaxis comprises destruction of carcasses and the treatment of dogs with anthelmintics. The taenia in the dog produces eggs about two months after infestation. Treatment of the dogs every two months is therefore indicated; though that may appear excessive.—(*L'Hygiene de la Viande et du Lait*).

(Neumann, in his *Parasites et Maladies Parasitaires du Chien et du Chat*, published in 1914, mentions this *Taenia ovis* of the dog as having been obtained by Ransom in 1913. He states that it is a species allied to *Taenia marginata*, but gives no detailed description of it. He adds that the ovine cysticercosis which it produces, though common in the United States, is rather rare in Europe.—*Transl.*)

## Royal College of Veterinary Surgeons.

### QUARTERLY MEETING OF COUNCIL.

A Quarterly Meeting of the Council was held at 10 Red Lion Square, London, W.C., on Friday, 4th Oct. Mr. F. W. GARNETT, C.B.E., J.P., President, occupied the Chair; and the following were present: Maj.-Gen. L. J. Blenkinsop, D.S.O., Maj.-Gen. Thomson, C.B., Messrs. Banham, Bradley, Carter, Clarkson, Coleman, Gaiger, Lawson; Sir John M'Fadyean; Messrs. Mulvey, Price, Share-Jones, Slocock; Sir Stewart Stockman; Mr. Wharam; Mr. G. Thatcher, Solicitor; and Mr. Fred Bullock, Secretary.

The minutes of the last meeting and of the special meeting, which had been printed and circulated, were taken as read and confirmed.

It was announced that apologies regretting their inability to attend the meeting had been received from Messrs. Abson, Barrett, Brittlebank, Dunstan, Howard, McKinna, Sumner, Trigger, and Wilson.

*Obituary.* The SECRETARY read the obituary list.

**Dr. Clement Stephenson.**

Mr. MULVEY: Mr. President and Gentlemen,—Amongst the names which have just been read out is that of a gentleman who occupied a seat on this Council some few years ago—Dr. Clement Stephenson. He held a unique position in the veterinary profession, and he was a notable man in the North of England and the surrounding counties. He did good work for the profession for many years; he raised himself by force of character to the very highest position; and in his own immediate district he was called upon on numberless occasions to consult with his fellows. So highly was he esteemed that the University of Durham conferred upon him the degree of Doctor of Science. He was esteemed by all who knew him; he lived to a great age, and he has gone to his rest full of years and honours. I beg to move that a vote of condolence with his relatives be passed. (Hear, hear).

Sir JOHN M'FADYEAN: Mr. President and Gentlemen,—Mr. Mulvey has so admirably expressed what I am sure are our common feelings with regard to Dr. Stephenson's death that it is scarcely necessary to say anything further. Nevertheless, as an old friend and a very sincere admirer of the late Dr. Stephenson, I should like to be allowed to add a few words. He had attained such a great age, and latterly suffered so sadly from the burden of his years, that it would be affectation to pro-



less regret of his death; nevertheless it is very fitting that we should add a tribute of respect to his memory, and give expression to our appreciation of the great work which he accomplished during his life. Dr. Stephenson was a man of extraordinarily strong personality. No one could be brought into contact with him without being impressed with his great ability, his extraordinary energy and thoroughness, and his uprightness; and to all these qualities he added a charm of manner, a kindheartedness and a power of sympathy that endeared him to all those who were privileged to be his friends. Last, but not least, he was a great lover of his profession, and the evidence of that is found in the handsome bequests which he has left, a large proportion of his fortune being devoted to the interests of this profession. We ought to be glad to think that this will serve to perpetuate his name and his memory in the veterinary profession. All in all, we may say that he was a man of whom the veterinary profession had good cause to be proud. (Hear, hear). May his example serve as an inspiration to the younger members of the profession. (Hear, hear).

The resolution was carried in silence, all present up-standing.

#### ADMISSIONS TO MEMBERSHIP.

The SECRETARY announced that since the previous quarterly meeting the following gentlemen had been admitted members of the College:—

##### London.

Mr. H. R. Allen  
G. Barnett  
R. W. Down  
C. W. Heane  
T. H. Jones  
H. H. Leach  
J. McCunn  
D. E. MacRae  
K. S. Simpson  
W. A. Williams

##### Edinburgh.

Mr. R. L. Creery  
J. McAllan  
J. Judge  
H. F. Downie  
J. K. Irvine  
J. R. Rider

##### Glasgow.

Mr. A. L. Robertson

##### Dublin.

Mr. J. T. Alcock  
W. F. Fennelly  
T. C. Hall  
A. J. Kelly  
S. Anderson  
C. A. Ewing  
T. FitzPatrick  
T. J. Hurley  
T. Kelleher  
W. E. Little  
A. J. McCutcheon  
B. S. Parkin  
W. L. Smyth  
D. P. White  
W. Frazer

#### FINANCE COMMITTEE.

Mr. LAWSON read the following report of a meeting of the Finance Committee held on the 4th October:—

*Chairman.* It was resolved: That Mr. Lawson be appointed Chairman of the Committee for the ensuing year.

The Treasurer submitted his financial statement for the quarter showing an adverse balance of £6 4s. 9d., and liabilities amounting to £86 7s. 5d.

It was resolved: That the Treasurer's statement be approved, and that he be ordered to pay the liabilities shown, together with cheques required for ensuing quarter and monthly salaries, also electric lighting, Corporation duty and telephone charges.

*Office Furniture.* The Treasurer reported that in order to provide for the increased work of the office he had purchased a desk and a typewriter, at a total cost of £16 2s. 6d.

It was resolved: That the action of the Treasurer be approved.

*Bonus to Secretary.* It was resolved to recommend that a bonus of £50 be paid to the Secretary and Registrar as an honorarium for extra work.

The PRESIDENT: I expect the Treasurer would like to say something on the report of the Finance Committee.

Mr. MULVEY: All I can say is on the old topic—money. We still want money to carry on. Everyone knows the increased work that is being done in this office, and in order to carry on that work it is necessary to find the means. I may say at once that I consider the response, which now amounts to over £1000, that has been given by the veterinary profession to the appeal is an excellent one. Still, we cannot stop there if we are to carry on. Our expenses may be counted as somewhere about £1500 a year, and I do want to impress upon those members who have not already subscribed to come forward with subscriptions. I do not know that I need add more, except that I want very heartily to support the proposal to give Mr. Bullock a bonus of £50. Mr. Bullock has done and is doing, a very great amount of work more than is really recognised by the profession. The work of the Tribunal, for instance, that has been put upon his shoulders entails innumerable enquiries. The details of every case have to be looked up, and the reason for the application for exemption dealt with. All this entails work, and I hope that the Council will unanimously agree to the suggestion of the Finance Committee that a bonus of £50 be accorded to him.

Mr. LAWSON: I beg to move that the report of the Finance Committee be received and adopted.

Maj.-Gen. THOMSON seconded the motion, which was carried unanimously.

#### REGISTRATION COMMITTEE.

The SECRETARY read the report of a meeting held on the 3rd October, which stated that it was resolved that the President be appointed to the chair.

Mr. G. N. TOMLINSON, Member of the College, was summoned to appear on a charge of conduct disgraceful in a professional respect, namely, drunkenness when in H.M. Service, and that he was convicted of drunkenness by a General Court-Martial, and in consequence dismissed the Service. The Solicitor stated that Mr. Tomlinson had written that he did not intend to enter any defence or to attend the meeting. The Solicitor read the official record of the Court-Martial held April 3rd, 1917, from which it appeared that he was charged with: (1) Drunkenness, (2) Drunkenness, (3) An act to the prejudice of good order and military discipline; and pleaded guilty to (1) and (2), but not guilty to (3). The finding was not guilty of (3), and the sentence to be dismissed from H.M. Service. The Committee find the charges proved.

The SECRETARY reported that he had received no explanation from a member from whom an explanation had been required, and he was instructed to call upon the member to attend the next meeting of the Committee to show cause why his name should not be removed from the Register.

A report of the finding of a Court-Martial held on another member while serving as an officer in the Army Veterinary Corps was submitted, and it was resolved that the member be called upon to appear at the next meeting of the Committee to show cause why his name should not be removed from the Register.

It was resolved that a prosecution be instituted in the case of a non-member using the title.

Six other cases were considered by the Committee, in two of which it was resolved that there was no case, while the other cases were adjourned for further enquiries.

On the motion of Mr. Clarkson, seconded by Mr. Lawson, the report was unanimously adopted.

The PRESIDENT: I am sorry that we have not a quorum at the present meeting to carry into effect the adoption of the report. I hope that at the next meeting there will be a quorum present.

Dr. BRADLEY: I beg to move that the seal of the

College be affixed to the prosecutions ordered in the report.

Mr. CLARKSON seconded the motion, which was carried unanimously.

#### EXAMINATION COMMITTEE.

Mr. MULVEY read the following report of a meeting held on October 3rd:—

It was resolved: That Mr. W. J. Mulvey be re-appointed Chairman of this Committee for the ensuing year.

The reports of the Local Secretaries, Chairmen of the Board of Examiners and Delegates on the examinations held in July were read and approved.

It was resolved: That the examination fees paid by the following students who were unable to take their examination in July owing to illness be held over until the December examinations:—H. O'Leary, Michael Murphy, Wallace Anderson, R. Gregg, John Norris, J. Heffernan.

*Assistance to veterinary students after the war.* The following report was received from the Sub-Committee appointed to consider what assistance, if any, will be required by veterinary students after the war:—

Assistance will probably be required for two classes of students.

1. Registered veterinary students whose studies have been interrupted while on active service. Many of these will, without financial assistance, be unable to complete their training.

2. Discharged officers and men who wish to enter the veterinary profession, but whose means are insufficient to enable them to undertake the four years' course required for qualification.

*Recommendations.* 1. The award of scholarships to deserving students on the recommendation of the Principals of the affiliated veterinary teaching schools, after full investigation into the circumstances of each case.

There are about 140 students on active service. Possibly half of these will require financial assistance. Fifty scholarships of £50 per annum each, for one, two, three or four years as may be required, should be available. £7500 would probably cover the cost, allowing an average of three years as the period required for qualifying.

2. In the case of the second category of candidates, wherever possible, having regard to the applicants' general education, the conditions concerning preliminary education should be somewhat modified.

The General Medical Council recognises a number of teaching institutions other than recognised schools of medicine, as institutions at which medical study may be commenced. It is recommended that the Council of the R.C.V.S. should in special cases, where for any reason the candidate could not attend for the first professional course at one of the affiliated schools, recognise his attendance at an approved teaching institution for courses in Chemistry and Elementary Physics, and Biology (Botany and Zoology) on the understanding

(a) That the candidate submit himself for the first professional examination in the subjects of Chemistry and Elementary Physics and Biology at one of the centres of such examination arranged by the R.C.V.S.

(b) That the whole subject of Anatomy to be taken at the second year's professional examination.

In view of the importance of maintaining the standard of education for veterinary surgeons, no reduction in the length of the professional course can be recommended except as indicated above.

Students whose circumstances would otherwise preclude their giving up four years in order to qualify for the profession should in approved cases be eligible for scholarships of say £50 a year for four years, re-

newable if necessary for a longer period on the recommendation of the Principal of the school attended. The number and value of the scholarships should be determined by the Ministry of Labour in conjunction with the Ministry of Pensions, bearing in mind the fact that the tuition and examination fees will amount to about £30 per annum, apart from the cost of books, instruments and maintenance expenses.

*Re-settlement of Officers in civil life.* Mr. Garnett reported that he had attended a meeting of the Re-settlement Committee under the Ministry of Labour as representative of the R.C.V.S. when Sub-Committees were appointed, and other preliminary steps taken.

It was resolved that the report be received and adopted.

*Educational Certificates.* Nos. 1712-1721 were submitted, and with the exception of Nos. 1716 and 1717 were approved.

*Examination of student-prisoner in Germany.* It was resolved: That the arrangements for the examination of a student-prisoner in Germany be left in the hands of the President and Chairman of the Examination Committee.

*Correspondence.* An application was received from Mr. T. R. Thomas, a third-year student, for a special examination in Stable Management at the December examination.

It was resolved: That arrangements be made for Mr. T. R. Thomas to be examined in Stable Management and Manipulation of Domesticated Animals and Principals of Shoeing Healthy Animals, by the Examiners in Hygiene and Dietetics at the Class C examination to be held in December.

An application was received on behalf of Mr. E. R. Ambrose, rejected in Class A in the subject of Chemistry only, and now in His Majesty's Forces, for a special examination in Chemistry at the December examinations.

It was resolved: That arrangements be made for Mr. E. R. Ambrose to be examined in the subject of Chemistry alone at the December examinations, and that if successful he be considered as having passed Class A examination.

Correspondence with the High Commissioner for the Union of South Africa was submitted asking what exemption, if any, would be granted to Mr. J. Martinaglia, South African student, who has passed his second year's course at the Ontario Veterinary College, if he transferred to the R.V.C., London. The Secretary was instructed to reply that no exemption could be allowed.

An application by Mr. J. Allport, medical student, for exemption from part of the four years' course.

It was resolved: That the matter be deferred for further enquiry.

An application by Mr. R. Bretherton, holder of the National Diploma in Agriculture, for exemption from the preliminary educational examination. The matter was deferred pending enquiries to be made by the Secretary as to the nature of the preliminary educational examination, if any, required by the National Agricultural Examining Board.

An application from Mr. W. Pearson, a soldier, for exemption from the preliminary educational examination in view of other certificates possessed. The matter was deferred for further enquiry.

*Recognition of Irish.* Correspondence was received with regard to the decision of the Council to discontinue its recognition of Irish as an approved modern language for the purpose of the preliminary educational examination.

It was resolved: That the decision of the Council be adhered to, but that the Secretary be instructed to make enquiries as to the practice of other professional bodies in this matter.

**Resignation of Examiner.** A letter was received from Mr. H. C. Reeks tendering his resignation as examiner in Pathology and Bacteriology in Class C.

It was resolved: That the resignation of Mr. H. C. Reeks be accepted with regret, and that the Secretary be instructed to convey to him the thanks of the Council for his past services.

Other correspondence was submitted and the Secretary was instructed as to the replies to be sent.

Mr. SHARE-JONES: Is the approval of the report a matter of great urgency to-day? It strikes me as being a very important and very comprehensive report, and it might be wise to circulate it to each member for discussion at the next meeting, unless there is something very urgent about it.

The PRESIDENT: Which part of the report are you referring to, the part dealing with assistance to veterinary students after the war?

Mr. SHARE-JONES: Chiefly.

The PRESIDENT: The circumstances in connection with that are these. A Sub-committee went into this matter, and they reported to the Examination Committee yesterday, and the matter was then thoroughly gone into. I myself think it is very urgent that this should be presented to the Ministry of Labour and the Ministry of Pensions at the earliest possible moment.

Mr. SHARE-JONES: I am not taking exception to the report, but I only mention the fact that, in the case of an elaborate document such as that which has just been read, it is quite a usual request to make that it should be circulated to each man who is called upon to vote on it. However, I do not raise any objection to it.

The PRESIDENT: In my opinion it is very urgent, and I think it should be presented as quickly as possible.

Mr. SHARE-JONES: So far as applies to the curriculum, it is simply and solely a war measure?

The PRESIDENT: That is so. It only applies to those persons who have served in the war, that is to say, since the 3rd August, 1914.

Dr. BRADLEY: I propose the adoption of the report.

Maj.-Gen. THOMSON seconded the motion, which was carried unanimously.

#### PARLIAMENTARY AND GENERAL PURPOSES COMMITTEE.

Dr. BRADLEY read the report of a meeting held on the 3rd October:—

*Chairman.* It was resolved: That Dr. O. Charnock Bradley be appointed to the Chair.

#### *Sub-Committee on Veterinary Surgeons' Bill for South Africa.*

The following report of the Sub-Committee appointed to draft a report and suggested reply to a letter received from Col. J. Irvine Smith relating to the proposed Veterinary Surgeons' Bill for South Africa was received and approved:—

The object of the Bill is to provide a Council of Veterinary Surgeons in the Union of South Africa for the following purposes:—

- (a) The admission and registration of persons as Veterinary Surgeons.
- (b) Disciplinary powers with regard to them.
- (c) Protection of the profession and public from unqualified persons.

There is no provision enabling the Council to make regulations as to the studies or examination of candidates, but the Governor-General is to prescribe (with certain limitations) what diplomas or certificates are to entitle to admission (Section 22). There is nothing in the Bill to specify length of course of study, or number, nature, mode or quality of examinations.

Diplomas granted in the United Kingdom or a British possession are to entitle to admission unless the Council satisfy the Governor-General that such diploma granting body has refused to grant reciprocal privileges to

persons who have qualified after examination in the Union (Section 22 (2)). This sub-section seems to be incomplete, but there is no doubt as to its intention. It will not affect the present holders of such diplomas if they apply for registration within one month after the passing of the Act (Section 22 (3)).

It will, however, shut out future applicants having the diploma of the Royal College of Veterinary Surgeons unless the College gives a reciprocal privilege, and this the College could not be advised to agree to in the present uncertainty of the qualifications necessary for registration in the Union.

The framer of Clause 22 (2) appears to have been under the impression that it was competent for the Royal College of Veterinary Surgeons to enter into some sort of bargain to admit holders of the Union of South Africa diploma if the Union admitted members of the College; but the Royal College of Veterinary Surgeons has no such power. Section 12 (1 and 3) of the Veterinary Surgeons Act, 1881, is definite on this point—that a recognised veterinary diploma is a veterinary diploma recognised for the time being by the Council of the Royal College as furnishing guarantee of the possession of the requisite knowledge and skill for the efficient practice of veterinary surgery. The Royal College of Veterinary Surgeons' judgment of what constitutes such a guarantee is evidenced by what is required from students before issuing to them its own diploma. It is suggested that the difficulty might be met by the insertion of a similar clause to Section 13 of the Veterinary Surgeons Act, 1881, in place of Sub-section 2 of Section 22 of the Bill.

Members of the Royal College of Veterinary Surgeons resident in the Union will be disqualified unless they apply for registration within one month after the Bill becomes law. The period is quite inadequate, especially during the war, since some of those members are on active service in various parts of the world and might fail to learn anything about the Bill for a considerable time after it is passed. The interval ought to be at least a year.

At the present time there are in this country a number of students who have come from the Union of South Africa in order to obtain the diploma of the Royal College of Veterinary Surgeons. Some of these have only passed the A examination and, therefore, cannot qualify till 1921, and probably other students are now on their way to begin the curriculum in October. Some of those already here were actually sent by the Union Government and have Scholarships to enable them to qualify.

Unless the Royal College of Veterinary Surgeons gives so-called reciprocal privileges to every person registered under the Bill in the Union, these students, when they qualify, will be unable to register in the Union, and it is quite certain that at least for years to come we shall not be able to grant reciprocal privileges (owing to absence of evidence regarding the standard of the teaching and of the examinations in the Union).

This is a very serious matter for the students in question, and the Council ought to take steps to ensure that their future is safeguarded in the Bill. This might be done by introducing words to the effect that:—

"Notwithstanding anything in the Bill, registration may be granted to any member of the Royal College of Veterinary Surgeons who was born in the Union of South Africa, and who at the date of the passing of the Bill was a *bona fide* student at a recognised Veterinary College in the United Kingdom."

It is suggested that some provision should be inserted for the imposition of a registration fee in order to provide funds for the carrying out of the provisions of the Bill.

The Sub-Committee suggest that a letter should be written by the Secretary to the High Commissioner for

the Union of South Africa setting out the views of the Royal College of Veterinary Surgeons, and that a copy of this should be enclosed in a covering letter to Col. Irvine Smith.

*Mettam appeal for Civil List Pension.* Correspondence on this matter was submitted, but its consideration was deferred pending further enquiries.

*Supplies of Linseed Oil.* The President reported that he had had an interview with the Chairman of the United Kingdom Linseed Oil Association, acting under the Ministry of Food with regard to the supplies of Linseed Oil for use in Veterinary Practice, and for agricultural purposes. He had made suggestions with regard to the disposition of the limited supplies available, and a further report on the matter would be submitted at the next meeting of Council.

It was resolved: That the action of the President be approved.

*Clean Milk Supply.* A letter from the Director of Milk Supplies (Ministry of Food) with regard to veterinary fees for carrying out the tuberculin test was submitted, and it was resolved: That the Chairman and Sir John M'Fadyean be asked to draft a reply to submit to the next meeting of Council.

*Veterinary Fees.* A letter was received from the Secretary of the Midland Counties Veterinary Medical Association conveying a report of a discussion at a meeting of the Association held on August 21st, and expressing the opinion of the Association that it is desirable in present circumstances that the fees of veterinary surgeons should be substantially raised. The Secretary was instructed to reply that this Committee concurs in the opinion expressed by the Midland Counties Veterinary Medical Association.

A letter was received from Major H. G. Simpson, and the Secretary was instructed to reply that the matter is not one on which the Committee can make any recommendation.

Mr. SHARE-JONES: I should like to move that the report be circulated to the members of the Council, and that the vote on it be taken at the next meeting. It is a report of engrossing interest. Personally I was somewhat disappointed to find that the Committee have not, so far as I gathered from the reading of the report, expressed any opinion at all to the Council as to the principle of conceding this application, supposing the conditions in South Africa were favourable. I think that is a matter on which they might have offered some opinion to the Council. I think I am justified in asking that, in the case of an important document of this kind, it should be circulated to the members before they are called upon to vote.

Mr. THATCHER (Solicitor): May I suggest that there is some amount of difficulty in adopting that course. I do not know that this Act is not in operation now in South Africa, and no time should be lost in putting forward this protest. It is some time since the Bill was put in the hands of the Committee, and I think the sooner some protest is made to the High Commissioner the better, or we may find that, while we have been deliberating on the Bill, an Act has actually been passed. The matter seems to me to be urgent.

The PRESIDENT: This is another matter that was referred to a small Committee. The Bill is a very voluminous one; it covers many pages of printed matter, and it has been very carefully gone into by the Solicitor and the Sub-Committee which reported to the main Committee yesterday; and I think it would be detrimental to the interests of the profession if the report were not passed to-day.

Mr. SHARE-JONES: I do not wish to be disrespectful to the Solicitor or the Committee, but it does appear to me as though the Committee have dealt with this problem with the ultimate object of securing such evidence as they could possibly secure to refuse the

application of South Africa. In the present state of International politics there is another side to the question, and it might prove ultimately very detrimental to the profession as a whole if the subject were not approached in a more sympathetic manner. However, I am not in a position to enter into detailed criticism of a report which I have simply heard read.

The PRESIDENT: I can assure Mr. Share-Jones that such a proposition as he is thinking about, that is, reciprocal treatment, will come up in due course whenever there is a College founded in South Africa which asks us to accept their members, but until that circumstance does arise—and it is not probable, certainly within the next two or three years—I think this is the only action we can take.

Mr. SHARE-JONES: With that assurance I am quite satisfied.

Sir JOHN M'FADYEAN: May I say, as a member of the Sub-Committee, that I think Mr. Share-Jones is under a misapprehension as to the nature of the proposal, if it can be so-called, that was submitted to us? As I understand it, no actual proposal has been submitted to us. We were asked to consider the terms of this Bill, which introduces legislation that will affect members of the profession in South Africa only, and what we felt we had to do was to see that the Bill contained no provisions which, so to speak, contravened the interests of the members of this College. We have dealt only with the points in the Bill which seemed, so to speak, to touch our interests. It is true that in the Bill the expression "grant of reciprocal privileges" is introduced more than once, but, as we have pointed out, the expression has been used in consequence of a misapprehension on the part of those who drafted the Bill with regard to what action is possible by us. But there is no question of being sympathetic or unsympathetic; we dealt with the situation as it exists at the moment, and as it is likely to continue to exist for a number of years. That is to say, we cannot make a bargain with the Government of South Africa that we will recognise, as the equivalent of our own diploma, a diploma that is not yet in existence and regarding the obtaining of which no conditions have been formulated, even in outline. I repeat that there is no question of want of sympathy with regard to the objects of those who promoted the Bill.

On the motion of Dr. Bradley, seconded by Mr. Clarkson, the report was then adopted.

#### PUBLICATION, LIBRARY, AND MUSEUM COMMITTEE.

Mr. SHARE-JONES read the following report of a meeting held on October 4th:—

It was resolved: That Dr. Share-Jones be appointed Chairman of the Committee for the ensuing year.

*Presentations to Library.* The Secretary reported that since the previous quarterly meeting the following presentations had been made to the Library.

*Annual Reports:* Veterinary Division, Union of South Africa, 1916-17; S. Rhodesia, Chief Veterinary Surgeon, 1917; Board of Agriculture for Scotland, Agricultural Statistics, 1916, Vol. V, Part I, Acreage and Live Stock Returns Agriculture Statistic, 1915, Vol. IV, Part III, Prices and Supplies of Grain, Live Stock, etc.

A Compendious System of Veterinary Instruction, by B. Bull, 1835; presented by Mr. W. H. Brown.

*Reprints:* Veterinary Diseases and the Vicious Circle, J. B. Hurry (v.n.); Eupatorium Urticæfolium as a Poisonous Plant, by D. D. Marsh and A. B. Clawson, reprinted from *Journal of Agricultural Research*, Washington; Destruction of Tetanus Antitoxin by Chemical Agents, reprinted from *Journal of Agricultural Research*.

*Bulletins:* Some Camel Feeding Experiments, by H. E. Cross; Dehorning and Castrating Cattle, by F. W. Farley; Hemorrhagic Septicæmia, by H. J. Washburn;

Breeds of Light Horses, by H. H. Reese; The Four Essential Factors in the Production of Milk of Low Bacterial Content, by S. H. Ayres, L. B. Cook, P. W. Clemmer; Some Notes on Medical Education in England, by Sir G. Newman.

*Calendars:* The Ontario Veterinary College, 1918-19; McKillip Veterinary College, 1918-19; Indiana Veterinary College, 1918-19.

*Periodicals:* The Journal of the Board of Agriculture and Fisheries; The Journal of the D.A.T.I., Ireland; Journal of Comparative Pathology and Therapeutics; Revue de Pathologie Comparée; Journal of Physiology (per Maj.-Gen. Sir F. Smith); Rhodesia Agricultural Journal; New Zealand Journal of Agriculture; Journal of Department of Agriculture, Melbourne, Victoria; The Bloodstock Breeders' Review; The Veterinary Review; The Veterinary Journal; The Veterinary Record; The Veterinary News; The British Medical Journal (per Dr. Bradley); The Educational Times.

It was resolved: That a vote of thanks be accorded to the respective donors.

*Subscriptions to Periodicals.* The Secretary was instructed to renew the annual subscriptions for the usual periodicals purchased.

*Register, 1919.* It was resolved: That the Register for 1919 be printed in the same form as for the present year.

*Publication of Bye-Laws.* It was resolved: That 100 copies of the Bye-Laws be printed, to be sold at a price to cover the cost.

On the motion of Mr. Share-Jones, seconded by Dr. Bradley, the Report was received and adopted.

#### WAR EMERGENCY COMMITTEE.

The SECRETARY read the following report of a meeting held on October 3rd:—

It was resolved: That the President be appointed to the Chair.

*Veterinary Tribunal.* The following Order of the Local Government Board was read:—

In pursuance of the provisions of Regulation 54 of The Military Service Regulations, 1918, the Local Government Board and the Secretary for Scotland hereby appoint:—

F. W. Garnett, Esq., C.B.E., M.R.C.V.S.  
G. A. Banham, Esq., F.R.C.V.S.  
Hugh Begg, Esq., F.R.C.V.S.  
O. Charnock Bradley, Esq., M.D., D.Sc., CH.B., M.R.C.V.S.  
J. Clarkson, Esq., M.R.C.V.S.  
H. J. Dawes, Esq., F.R.C.V.S.  
Sir J. M'Fadyean, Esq., LL.D., M.B., C.M., B.Sc., M.R.C.V.S.  
W. J. Mulvey, Esq., F.R.C.V.S.  
S. H. Slocock, Esq., F.R.C.V.S.  
J. Willett, Esq., M.R.C.V.S.  
P. Wilson, Esq., M.R.C.V.S.  
W. Woods, Esq., F.R.C.V.S.

to be a Special Tribunal (hereinafter called the Veterinary Tribunal) for the purpose of dealing, on and after the twenty-eighth day of August, 1918, with any application, or request for leave to make application, for the grant, renewal, variation or withdrawal of a certificate of exemption to, or held by, any man (not being a duly qualified medical practitioner), who is a qualified veterinary surgeon registered under the Veterinary Surgeons Act, 1881. F. W. Garnett, Esq., C.B.E., M.R.C.V.S., is hereby appointed to be Chairman of the Veterinary Tribunal.

And the Local Government Board and the Secretary for Scotland direct that the powers, functions and procedure of the Veterinary Tribunal in relation to the matters aforesaid shall be the same as those of an Appeal Tribunal when dealing with applications, or request for leave to make application, made direct to

them under the Military Service Regulations, 1918, as amended by subsequent Regulations.

Dated this twenty-first day of August, 1918,

W. HAYES FISHER,  
President of the Local Govt. Board.  
ROBERT MUNRO,  
His Majesty's Secretary for Scotland.

*Exemption and Release of Veterinary Students.* The Secretary reported that he had had an interview at the Ministry of National Service with regard to the question of the release and exemption of veterinary students, and had supplied the Ministry with full particulars respecting the names, addresses, ages and medical grades of all registered veterinary students, making the request that the students at present registered in the Colleges should be made exempt from military service irrespective of age and medical category, and that bona fide veterinary students now service with the colours should be demobilised to complete their studies.

It was resolved: That the action of the Secretary be approved.

On the motion of the President the report was unanimously adopted.

The PRESIDENT: There is one thing I omitted at the Special Meeting we held about the formation of the Veterinary Tribunal, and that was to ask the permission of the Council that Mr. Bullock might be allowed to serve as Clerk to that Tribunal. I take it that it is your wish that that be so. (Agreed to.)

#### HONOURS AND PRIZES COMMITTEE.

Mr. BANHAM read the following report of a meeting held on October 4th:—

It was resolved: That Mr. Banham be appointed to the Chair.

*FitzWygram Prize.* The Secretary read the report of the Auditors on the number of marks gained by the students eligible for the FitzWygram prizes, from which it appeared that Mr. T. Kelleher of the Royal Veterinary College, Ireland, reached the first place with 773 marks, and Mr. J. McCunn of the Royal Veterinary College, London, reach the second place with 731 marks.

It was resolved: That the FitzWygram Prizes, 1918, be awarded:—First Prize, T. Kelleher; Second Prize, J. McCunn.

*Steel Memorial Medal.* It was resolved to recommend: That the Steel Memorial Medal be awarded to Dr. Griffith J. Evans, M.B., C.M., M.R.C.V.S.

*Honorary Associates.* Recommendations for election as Honorary Associates were submitted and considered. It was resolved: That the matter be deferred for the time being.

Sir JOHN M'FADYEAN: There is one matter arising in connection with the report that has just been read that I should like to raise, and that is the question whether we have the power, and if we have the power whether we should exercise it, of suspending the award of these prizes until the conclusion of the war, until the size of the classes becomes normal. I am sorry to have to admit that, if there is any force in the remarks which I am making, I ought to have made them sooner, but I think everyone who considers the position would admit that things have really become absurd, that is to say the number of students eligible for these prizes is so small as to deprive their award of any honour. I would suggest that we should find out whether we have the power and whether we should exercise it. If we have no power of course we cannot exercise it. I would suggest that the matter be referred to the Examination Committee.

The PRESIDENT: I think that is the best thing to do.

Sir JOHN M'FADYEAN: What I mean is that when there are only a quarter of the candidates that used to be eligible, it is not much of an honour to gain the prize.

The PRESIDENT: It is set out in the bequest that two prizes shall be awarded in the month of August of each year, but I think it might be quite possible, with the consent of the Charity Commissioners, to withhold the giving of them during the period of the war, or something like that. I quite agree that the size of the classes is simply absurd.

Mr. THATCHER (Solicitor): I would not like to express a view on the matter at present until I have more carefully considered it.

Mr. GAIGER: Should we not, if we defer the award until after the war, also set a limit for a minimum of marks, taking the average obtained for the last twenty years, otherwise you may be doing injustice to a brilliant student?

The PRESIDENT: We cannot do that because the prizes are given to the students obtaining the highest number of marks awarded for certain examinations. If the matter is referred to the Examination Committee Mr. Thatcher has promised to go into the legal aspects of the matter and see what we can do with regard to the views expressed. I think we might leave it in that way; it will be much the best way of dealing with it.

Major-General BLENKINSOP: It is a great pleasure to me to hear that the Council proposes to award the Steel Memorial medal to a gentleman who has done for this profession probably one of the biggest things that has ever been done for it. Dr. Griffith Evans was in Army veterinary service in India, and he was the first man to find the pathogenic trypanosomes in animals, which are now at the present time giving an enormous amount of trouble in India. He led all the scientific world on this one point, and I think this is quite the proper time when we should say something as a Council of the great work this officer has done for the profession as a whole.

On the motion of Mr. Banham, seconded by Mr. Clarkson, the report of the Committee was unanimously adopted, it was also agreed that the question raised by Sir John M'Fadyean should be referred to the Examination Committee.

SECRETARIES OF BOARD OF EXAMINERS IN SCOTLAND, LIVERPOOL AND IRELAND.

On the motion of Mr. Mulvey, seconded by Mr. Banham, it was unanimously resolved that Mr. Blackhurst, Mr. Archibald Burt, and Mr. Finlay Kerr, should be re-appointed to the positions they at present hold.

#### NOTICES OF MOTION.

The PRESIDENT: I give notice of the following alteration to Bye-law 61:—

After the first clause to add the words "Together with a certificate of birth."

Also an addition to the Bye-law of the following words:—"In any special circumstances arising in connection with the war, exemptions or other concessions may be granted by the Council on the recommendation of the Examination Committee to any person who has served in one of His Majesty's Forces since the 3rd day of August, 1914."

Prof. S. H. GAIGER: I beg to give notice of the following alteration of Bye-law 63A, that it shall read as follows:—"(a) A course of not less than 80 lectures on the Pathology, Bacteriology and Protozoology of the domesticated animals.

(b) Practical Pathology. A practical course extending to not less than 40 hours' instruction on the Pathology, Bacteriology and Protozoology of the domesticated animals."

Mr. MULVEY: I beg to give notice that at the next meeting of Council I shall move the following alteration to Bye-law 62A:—

"(1) A student who has obtained a degree in Arts, Science, or Medicine, or a degree or diploma in Agri-

culture granted by a University situate within the United Kingdom, or by any other body whose degree or diploma in Agriculture is approved for the time being by the Council on the recommendation of the Examination Committee, or the diploma of Licentiate of one of the Royal Colleges of Surgeons, or of one of the Royal Colleges of Physicians, and who in procuring any such degree or diploma passed an examination in Chemistry and also in Biology, Zoology or Botany, shall be exempted from his A or first professional examination, and the bye-laws and regulations in respect thereof, and shall be entitled in all respects to the rights and privileges which the passing of such examination ordinarily confers, provided always that such student so exempted shall be examined in the whole subject of Anatomy in the Class B examination.

(2) A student possessing a degree or diploma of a like import or denomination to one of those enumerated in paragraph 1 hereof, but granted by a University or other examining or licensing authority other than those mentioned in paragraph 1 shall, if the Council declare its sufficiency for exemption, thereupon become entitled in all respects to such exemptions, rights and privileges as are defined in paragraph 1 of this bye-law."

#### V.V.B. FUND—REGISTERED OFFICE.

The SECRETARY: I am requested, on behalf of the Council of the Victoria Veterinary Benevolent Fund, to ask this Council for permission to display a notice outside this building to the effect that the registered offices of the Victoria Veterinary Benevolent Fund, Incorporated are at this address. It is necessary to display such a notice as soon as the Victoria Veterinary Benevolent Fund becomes incorporated under the Companies Consolidation Acts.

Mr. MULVEY: That means a brass plate on the door outside?

Mr. THATCHER (Solicitor): It may be put up anywhere there.

The PRESIDENT: Subject to the approval of the Treasurer, I think we might grant that request. There will be nothing objectionable about it in any way.

Permission was then granted in the terms desired.

This concluded the proceedings of the Quarterly Meeting of Council.

#### SPECIAL MEETING.

Immediately following the quarterly meeting, a Special Meeting of Council was held, presided over by the President, Mr. F. W. GARNETT, C.B.E., J.P., and the same members were present as at the quarterly meeting.

The Minutes of the last Special Meeting, which had been printed and circulated, were taken as read and confirmed.

#### ALTERATION TO BYE-LAW 80.

Sir STEWART STOCKMAN moved the following alteration to Bye-law 80, of which he had given due notice.

"Each candidate for the office of Examiner shall, at least fourteen days before the election, intimate in writing to the Secretary his willingness to be appointed, and submit with his application a statement of his qualifications . . ."

The remainder of the Bye-law to stand as at present.

He said: Bye-law 80 as it stands at present is somewhat ungrammatical. It contains a rather anomalous provision, namely, that a candidate for examinership for this College can apply through a member of the College instead of to the Secretary. The amendment which I now propose aims at altering that, so that any candidate for an examinership will apply directly to the Secretary, saying that he is willing to be appointed, and submitting with his application a statement of his qualifications. I beg to move the alteration.



Sir JOHN M'FADYEAN seconded the motion, which was carried unanimously.

*Alteration to Bye-law 62a.* Mr. MULVEY: I rise to ask permission to withdraw the notice of motion which I have given.

The PRESIDENT: I take it that the Council will grant that request. (Agreed to).

The notice given by Mr. Mulvey for the alteration of Bye-law 62a was as follows:—

(1) A student who has obtained a degree in Arts, Science or Medicine, or a degree or diploma in Agriculture granted by a University situate within the United Kingdom, or by the Joint Examining Board of the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland, or by any other body whose degree or diploma in Agriculture is approved for the time being by the Council on the recommendation of the Examination Committee, or the diploma of Licentiate of one of the Royal Colleges of Surgeons, or one of the Royal Colleges of Physicians, and who in procuring any such degree or diploma passed an examination in Chemistry and also in Biology, Zoology or Botany, shall be exempted from his A or first professional examination, and the bye-laws and regulations in respect thereof, and shall be entitled in all respects to the rights and privileges which the passing of such examination ordinarily confers, provided always that such student so exempted shall be examined in the whole subject of Anatomy in the Class B examination.

(2) A student possessing a degree or diploma of a like import or denomination to one of those enumerated in paragraph 1 hereof, but granted by a University or other examining or licensing authority other than those mentioned in paragraph 1 shall, if the Council declare its sufficiency for exemption, thereupon become entitled in all respects to such exemptions, rights and privileges as are defined in paragraph 1 of this bye-law. In any other special circumstances arising in connection with the war, exemption under this bye-law may be granted by the Council on the recommendation of the Examination Committee.

It was agreed that the Confirmatory Meeting of the Council should be held on Friday, the 18th inst.

*The Steel Memorial Medal.* The PRESIDENT: With regard to the award of the Steel Memorial Medal to Dr. Griffith Evans, it is almost certain he will not be able to attend at this Council. He is a very old gentleman and is confined to the house, and in the event of his saying that he cannot attend, I take it that it is your wish that the Medal should be sent to him with a suitable letter.

Mr. BANHAM: I propose that.

Mr. CARTER seconded the motion, which was carried unanimously.

A hearty vote of thanks having been accorded to the President for his conduct in the Chair, the meeting terminated.

### THE VETERINARY TRIBUNAL

The first meeting of the Veterinary Tribunal was held at 10 Red Lion Square, London, W.C., on Wednesday, October 2nd, 1918, when all the members were present, the chair being occupied by Mr. Frank W. Garnett, C.B.E., M.R.C.V.S.

The SECRETARY read the Order constituting the Tribunal, a copy of which has already been published.

On the proposition of Mr. Garnett, seconded by Mr. Dawes, it was unanimously resolved that Mr. W. J. Mulvey, F.R.C.V.S., be appointed Deputy Chairman of the Tribunal.

The CHAIRMAN proposed, and it was unanimously carried, that Mr. F. Bullock, F.C.I.S., be appointed Secretary to the Tribunal.

The general question as to the sources of supply of duly qualified veterinary surgeons, either for commissions in the A.V.C., or for substitutes to release younger men now in civil practices in order that they may be rendered available for commissions, was considered, and a recommendation was passed urging the importance of the release and exemption of veterinary students in order that they may continue their studies and complete their qualification.

The Secretary was instructed to report to the National Service Representative all cases coming under his notice where exemption has been granted by Local Tribunals to unregistered persons acting as veterinary practitioners.

The following cases were then dealt with:—

Mr. A. M. Wylie, M.R.C.V.S., of The Dell, Grays, Essex, Temporary exemption for three months was granted.

Mr. W. Crawford, M.R.C.V.S., of 155 Woodhouse Lane, Leeds. The National Service Representative's appeal was dismissed, and a temporary exemption for six months was granted.

Mr. A. J. Horner, M.R.C.V.S., Evelyn House, Witham, Essex. Temporary exemption for six months was granted.

Mr. G. H. Williams, M.R.C.V.S., of 2 Langley Road, Chippenham. Temporary exemption for six months was granted.

In each case exemption was also granted from training with the Volunteers.

### NEXT MEETING.

The next meeting of the Veterinary Tribunal will be held at 10 Red Lion Square, on Friday, 18th October, at 11 a.m.

The Tribunal is open to the public: as all other such tribunals.

### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

G. A. Banham, Cambridge			
(1914-15-16-17-18)	£5	5	0
H. B. Dier, East Grinstead	1	1	0
D. A. Gillmor, Capt. A.V.C.	1	1	0
G. Goodliff, Capt. A.A.V.C.	1	1	0
B. A. Jarvis, Capt. A.V.C.	1	1	0
J. Littler, Oakham, Rutland	1	1	0
G. R. McCall, Capt. S.A.V.C.	1	1	0
Sir John M'Fadyean, R. V. Coll.	5	5	0
R. C. C. Thwaytes, Maj. A.V.C.	1	1	0
Vety. Offs. of the E. Afr. Protectorate			
Serv. and the E. Afr. Vety. Cps:			
O. Dixon, M.C. (1916-17-18)	3	7	6
W. Kearney	1	2	6
A. W. Carter	1	2	6
T. C. Bradshaw	1	2	6
W. Kennedy, D.S.O.	1	2	6
M. H. Reid	1	2	6
F. J. McCall, M.C.	1	2	6
F. J. Sheedy, Capt. E.A.V.C.	1	2	6
G. N. Hall, Capt. E.A.V.C.	1	2	6
W. W. Henderson, Capt. E.A.V.C.	1	2	6

Previously acknowledged 1020 16 11

£1052 3 11

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Rabies: Sept. 7th 1; Sept. 28th 6 (dogs); other animal 1. Oct. 5th 8 (dogs) confirmed. Total, 15 dogs, 1 other animal.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. †		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	(a)		(a)		(b)		(b)			(a)	
GR. BRITAIN.											
Week ended Oct. 5	3	3	1	3		3	34	47	1	29	9
Corresponding week in											
1917 ...	1	2			1	6	12	19	2	25	6
1916 ...	8	10			2	4	11	41	2	57	37
1915 ...	4	5			2	3	12	26	1	45	125
Total for 40 weeks, 1918 ...	192	222	2	11	25	70	3626	6839	261	1094	437
Corresponding period in											
1917 ...	349	398			22	41	1969	3758	406	1818	789
1916 ...	408	481	1	24	43	105	1769	3991	197	3593	8805
1915 ...	446	508			40	71	†644	†1391	164	3208	14045

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
 (a) Confirmed. (b) Reported by Local Authorities  
 † Counties affected, animals attacked:—London 3  
 Board of Agriculture and Fisheries, Oct. 8, 1918 Excluding outbreaks in army horses.

IRELAND. Week ended Sept. 21	...	...	...	...	...	...	Outbreaks 3	5	...	9
Corresponding Week in										
1917 ...	...	...	...	...	...	...	1	8	...	3
1916 ...	...	...	...	...	...	...	...	8	11	74
1915 ...	...	...	...	...	...	...	1	2	5	25
Total for 38 weeks, 1918	...	2	2	...	...	...	92	213	21	72
Corresponding period in										
1917 ...	3	5	...	...	1	1	40	289	185	1082
1916 ...	3	7	...	...	...	...	54	309	245	1432
1915 ...	1	1	...	...	1	3	57	307	191	1062

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Sept. 23, 1918  
 NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## "WHO IS TO BLAME?"

To the Editor, "The Veterinary Record."

Dear Sir,—There is one aspect of the insurance of live stock in which we as veterinary surgeons are sometimes placed in an awkward position—I refer to the granting of post-mortem certificates on non-inspected animals.

Take, for instance, a horse that is insured without veterinary examination. The animal is taken ill; the owner—a good client, sends for his veterinary surgeon, treatment is adopted, but it is a serious case and the animal dies. Or take another case in which the veterinary surgeon is only called in to make a post-mortem and report. In the policy the age is given as ten years, and the insured value is £80.

The veterinary surgeon finds the horse is not less than eighteen years of age, and in his opinion the insured value £50. How is he to act? Is the vety. surgeon to adhere to his opinion in giving a certificate and thus play into the hands of the insurance company, so that they can squabble over the claim, and for himself the possible loss of a good client; or is he to squash his opinion and follow the lines of the policy?

Cases of this kind are of frequent occurrence. Personally I try to follow the lines of the policy as far as possible, on the principle that if an insurance company takes on such a risk, they are quite liable to pay in the event of a claim.

However, this state of affairs should not exist, no animal should be insured unless a veterinary report has been furnished. Of course, this is a matter for the insurance companies only; if they let themselves in for bogus claims the only one to benefit is the insurant.

"PUZZLED."

## QUACK VETERINARY REMEDIES.

Sir,—With reference to the articles appearing in the V.R. respecting patent medicines; as they are not stamped I think the above name more applicable. Really the amount of quackery is measured by the label on the bottle. How do some members of our profession stand? I have seen finely coloured labels with a horse, cow and sheep on them, four inches deep, on a six ounce bottle, labelled colic or gripe drink; and it cured all animals above mentioned not only of colic, but about a score of other ailments, including calving cows and lambing ewes. Then, of course, there was another bottle containing white oils, which was a specific for all external affections, etc., lameness, sore throats, coughs, strangles, swollen bags in cows and sheep. With a bottle or two of these, the farmer could dispense almost with his veterinary surgeon, and leave him to seek help in his old age from the Victoria Benevolent Fund.

I have always had a great aversion to quackery in any form; and I think if more discretion were used in the use of labels it would raise the status of our profession very much. Any reader who sends to a veterinary label printer for samples will be able to prove what I have said on that point.

If we adjust matters inside the profession it will be an easier matter to alter matters outside.

GEO. E. GIBSON, M.R.C.V.S.

Newport Pagnell.

MIDLAND COUNTIES V.M.A.—CORRECTION.

To the Editor, "The Veterinary Record."

Dear Sir,—In the report of the meeting of the Midland Counties V.M.A. I am reported to have said that the ther-

ometers I used registered 100° F. It was 110° F. that they registered. The mercury in the first thermometer rose to the very top and broke the thermometer. I therefore sent for another, but as it also only registered to 110 I was unable to find the true temperature of the patient, which was, of course, over 110.

With regard to grease, said that I prepared the skin for treatment by clipping the hair as short as possible, and then washing with a hot solution of soft soap and cresol. I then dried the skin, and washed it with petrol, thus removing all secretions.

Tenbury.

JAMES M. WHYTE, M.R.C.V.S.

### ARMY VETERINARY SERVICE

War Office, Oct. 7.

The following names are to be added to those brought to notice for distinguished services by Lt.-Gen. Sir J. L. Van Deventer, K.C.B., in his dispatch of Jan. 21, 1918:—

\* \* \*

Major W. Kennedy, East African Vety. Corps.

The following is now correctly described:—

*Gazette* dated May 20, 1918—Capt. (temp. Maj.) J. L. C. Jones, A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Oct. 4.

#### REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. D. R. Williamson, Spec. Res., relinquishes the actg. rank of Maj. on ceasing to hold the appt. of Dep. Asst. Dir. of Vety. Servs. (Aug. 8).

Temp. Capt. E. Salusbury relinquishes his commn. on account of ill-health contracted on active service, and is granted the hon. rank of Capt. (Oct. 5).

Oct. 8.

Capt. R. F. Bett to be actg. Maj. whilst holding the appt. of Dep. Asst. Dir. of Vety. Servs. (Mar. 8) (substituted for notification in the *Gazette* of June 24).

Temp. Capt. (Bt. Maj.) S. L. Symonds to be actg. Maj. (June 15).

Capt. to be actg. Maj. :—S. W. Marriott (June 15); W. H. Simpson (July 25); C. Davenport (July 29); R. F. Stirling, F.R.C.V.S., Spec. Res. (Aug. 22).

Temp. Capt. G. S. Arkcoll relinquishes his commn. on acct. of ill-health and is granted the hon. rank of Capt. (Oct. 9).

Oct. 9.

To be temp. Lt. :—W. B. Davidson (Aug. 29).

### OBITUARY.

JAMES HENRY TURNOR KENYON, Hon. Capt. A.V.C.  
Graduated, N. Edin : April, 1874.

Died, Savoy Hospital, Blackpool, Sept., 1918, aged 67.

WILLIAM BENNETT, "Existing Practitioner," Odessa Street, Dowlais, Glam.

Mr. Bennett died on October 1st, aged 60.

KITCHEN.—On the 2nd Oct., at Bournemouth, after years of suffering borne with Christian fortitude, Elizabeth Frances (Lizzie), the dearly-loved wife of James Edward Kitchen, M.R.C.V.S., of Glengall Lodge, Woodford Green, Essex. A devoted wife and mother.

### Balliol College A.-A. Sale.

The entire herd of pedigree Aberdeen-Angus cattle owned by the late Dr. Clement Stephenson was dispersed at Balliol College Farm, Benton, Newcastle, on Thursday, Oct. 3, by Messrs. Macdonald, Fraser & Co. (Ltd.). During the forty years he was a breeder of Aberdeen-Angus cattle, the late Dr. Stephenson paid the closest attention to soundness of constitution, milking qualities and breed character, and the success which followed his efforts is fully reflected in the long list of honours won by representatives of the herd at the principal shows. The stock were presented on Thursday in useful breeding condition, and they formed a very attractive lot, the young cows and yearling heifers being particularly good. There was a fairly good attendance, and most of those present were on the look-out for stock, with the result that a satisfactory trade was experienced.

Mr. Lovat Fraser conducted the sale, and disposed of the 52 head in less than an hour and a half. A beginning was made with the cows. The top price of the sale was 240 guineas, by Mr. Sandeman, Moredon House, Herts, for Jilt of Benton XII (53275), a beautiful five-year-old cow which has proved an excellent breeder. She was by the home-bred sire, Bright Actor (31512), and is in calf to Prince of Jesters (32404).

Yearling heifers sold well. In this section the highest figure was 180 guineas by Mr. Watt for Proud Miss (61184), by Prince of Jesters out of Pride X. of Laggan : the 130 guineas cow also secured by Mr. Watt, Proud Primrose (61185), by Prince of Jesters, was generally regarded as the plum of the heifers, and, considering her breeding and quality, she was cheap at 170 guineas to Mr. A. W. Bailey Hawkins, from Kent.

Two bulls were exposed. Newcome Laddie (42084), bred by Lord Penrhyn, Wicken Park, and which was third at Birmingham sale this year, is a thick stylish bull with capital quarters. His price was £140 guineas to Mr. Watt.

#### SUMMARY.

	Average	Total
21 cows	£79 0 0	£1659 0 0
7 bull calves	39 0 0	273 0 0
12 heifer calves	40 10 3	486 3 0
1 two-year-old heifer	—	63 0 0
9 yearling heifers	79 18 4	719 5 0
2 bulls	123 18 0	247 16 0
52 head	£66 6 3	£3448 4 0

*The Scottish Farmer.*

### Personal.

Lieut.-Col. HUBERT MAXWELL LENOX-CONYNHAM, D.S.O., of Fern Hill, Sandyford, Co. Dublin, Assist. Dir. of Vety. Servs., Western Command, left estate valued at £6372.

### Veterinary Societies—Addresses.

#### BORDER COUNTIES V.M.S.

Pres : Mr. H. Barrow, M.R.C.V.S., Ireby, Carlisle  
Hon. Sec : Mr. R. Craig Robinson, M.R.C.V.S., Carlisle  
Meetings, Second Friday of Feb., June, and October

#### GLASGOW V.M.S.

Hon. Sec. Mr. John S. Kearne, 11 Falkland Mansions, Kelvinside

#### ROYAL VETERINARY COLLEGE V.M.A.

Pres. Capt J. T. Edwards, B.Sc., M.R.C.V.S.  
Treas : E. S. Shave, Esq., F.R.C.V.S., M.B.C.S.  
Sec : Mr. B. Gorton, M.R.C.V.S. Asst. Sec. C. W. Heane.

#### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS

Pres : Major J. Abson, F.R.C.V.S., Sheffield  
Hon. Sec : Mr. Trevor Spencer, M.R.C.V.S., Kettering

**Royal College of Veterinary Surgeons.***President*: Mr. Frank W. Garnett, M.R.C.V.S., J.P.*Vice-Presidents*: Mr. J. McI. McCall, M.B., C.M., M.R.C.V.S.  
J. McKinna, F.R.C.V.S.*Secretary and Registrar*: Mr. Fred Bullock,  
10 Red Lion Square, London, W.C. 1.**NATIONAL VETERINARY ASSOCIATION***President*: Dr. O. Charnock Bradley, Prin. R.V. Coll., Edin.  
*Sec.*: Mr. J. W. Brittlebank, M.R.C.V.S. (on Service),  
Town Hall, Manchester*Assist. Sec.*: Mr. W. L. Harrison, F.R.C.V.S. (on Service),  
11 Anchor Terrace, Southwark Bridge, S.E.  
*Treas.*: Prof. G. H. Wooldridge, F.R.C.V.S. (Acting Hon. Sec.),  
Ryl. Vet. Coll., Camden Town N.W.**Northern Branch:***Pres.*, Mr. W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* Mr. A. W. Noël Pillers, (F)  
71 Smithdown Lane, Liverpool*Pres.*: Mr. G. H. Locke, M.R.C.V.S.,  
Grosvenor-street, Manchester  
*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
Town Hall, Manchester*Hon. Treas.*: Mr. E. H. Stent, M.R.C.V.S., Preston-st., Hulme  
*Meetings*, 1st Thursday in April, June, Sept., & Dec.  
**LIVERPOOL UNIVERSITY V.M.S.***Pres.*: Mr. J. P. Hayes, F.R.C.V.S., Wigan  
*Hon. Sec.*: Mr. A. Walker, F.R.C.V.S., Mill Lane, West Derby  
*Pathological Sec.*: Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings*, May, July, October, January.**MIDLAND COUNTIES V.M.A.**  
*Pres.*: Mr. J. Malcolm, F.R.C.V.S., Birmingham  
*Hon. Sec.*: Mr. H. J. Dawes, F.R.C.V.S.,  
Camden House, High-st., West Bromwich  
*Hon. Treas.* Mr. J. J. Burchall, M.R.C.V.S., Barrow-on-Soar  
*Meetings*, Second Tuesday, Wednesday, Thursday, and  
Friday alternately in Feb., May, Aug. and Nov**NORTH OF ENGLAND V.M.A.**  
*Pres.*:  
*Hon. Sec.*: T. T. Jack, M.R.C.V.S., 3 Elmwood-st., Sunderland  
*Meetings*, Third Friday, Feb., May, Aug. and Nov.**NORTH MIDLAND VETERINARY ASSOCIATION**  
*Pres.*: Mr. W. Collinson, M.R.C.V.S., Auston, Sheffield  
*Hon. Sec.*: Mr. J. S. Lloyd, F.R.C.V.S., Sheffield**NORTH WALES V.M.A.**  
*Pres.*: Mr. Hugh Williams, M.R.C.V.S., Ty Croes  
*Hon. Sec.*: Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings*, First Tuesday, March and September**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.**  
*Pres.*: Mr. J. M. Walker, F.R.C.V.S., Hartlepool  
*Hon. Sec. & Treas.*: Mr. F. H. Sanderson, M.R.C.V.S.,  
Victoria Road, Darlington  
*Meetings*, First Friday, Mar., June, Sept. and Dec.**YORKSHIRE VET. ASSOCIATION**  
*Pres.*: Mr. S. E. Sampson, M.R.C.V.S., Hillsboro', Sheffield  
*Hon. Sec.*: Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas.*: Mr. A. McCarmick, M.R.C.V.S.,  
Kirkstall-road, Leeds**Southern Branch:***Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.***CENTRAL V.S.**  
*Pres.* Prof. G. H. Wooldridge, M.R.C.V.S., R.V. Coll, London  
*Hon. Sec.*: Mr. H. A. MacCormack, M.R.C.V.S.,  
122 St. George's Avenue, Tufnell Park, N.  
*Meetings* (pro. tem.), First Thursday in October and alter-  
nate months, except August,  
10 Red Lion Square, Holborn, at 7 p.m.**EASTERN COUNTIES V.M.A.***Pres.* Mr. T. E. Barcham, M.R.C.V.S., Paston, Norfolk  
*Hon. Sec. & Treas.*: Mr. A. O. Holl, M.R.C.V.S., New Buckenham  
*Meetings*, Second Tuesday, Feb., July and Sept.**LINCOLNSHIRE AND DISTRICT V.M.S.***Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
Long Stanton, Cambridge  
*Hon. Sec. & Treas.*: Mr. Tom Hicks, M.R.C.V.S.,  
Boston Road, Sleaford  
*Meetings*, Second Thursday Feb., June, and October**ROYAL COUNTIES V.M.A.***Pres.*: Mr. J. Willett, M.R.C.V.S., 6 Harley Place, N.W.  
*Hon. Sec. & Treas.*: Mr. G. P. Male, M.R.C.V.S., Reading  
*Meetings*, Last Friday, Jan., April, July and Nov.**SOUTHERN COUNTIES V.S.***Pres.*: Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec.*: Mr. J. T. Angwin, M.R.C.V.S., Arundel (on Service)  
*Hon. Treas.*: Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings*, Last Thursday, Mar., June and Sept.**SOUTH EASTERN V.A.***Pres.* Mr. E. Lyne Dixon, M.R.C.V.S., Markate  
*Hon. Sec. & Treas.* Mr. H. P. Hogben, M.R.C.V.S.,  
3 Manor Road, Folkestone**WESTERN COUNTIES V.M.A.***Pres.*: Mr. W. Roach, F.R.C.V.S., York Rd., Exeter  
*Hon. Sec.*: Mr. W. Ascott, M.R.C.V.S. (on Service)  
Mr. C. E. Tucker, 7 Greville St., Bideford (pro tem.)  
*Hon. Treas.*: Mr. P. G. Bond, M.R.C.V.S., Plymouth  
*Meetings*, Third Thursday, March, July and November**Irish Branch:***Pres.* Mr. A. Watson, Municipal Buildings, Dublin  
*Sec.* Mr. P. D. Reavy, Leafield, Bundoran, Co. Donegal  
**CENTRAL V.A. OF IRELAND.***Pres.*:  
*Hon. Sec.* Mr. E. C. Winter, F.R.C.V.S., Queen-st., Limerick  
*Treas.*: Mr. J. F. Healy, M.R.C.V.S., Middleton**CONNAUGHT V.M.A.***Pres.* Mr. D. Hamilton, M.R.C.V.S., Ballina  
*Hon. Sec. & Treas.* Mr. A. J. Moffett, M.R.C.V.S., Galway**VET. MED. ASSN. OF IRELAND.***Pres.*: Prof. J. J. O'Connor, M.R.C.V.S., R.V. Coll., Dublin  
*Hon. Sec.*: Prof. J. J. O'Connor.  
*Hon. Treas.*: Prof. J. F. Craig, M.A., M.R.C.V.S.,  
R.V. Coll., Dublin**NORTH OF IRELAND V.M.A.***Pres.*: Mr. J. Ewing Johnston, M.R.C.V.S., Belfast  
*Hon. Sec.*: Mr. P. Walsh, M.R.C.V.S., Magherafelt  
*Hon. Treas.*: Mr. Howard McConnell, M.R.C.V.S., Armagh**THE VETERINARY OFFICERS ASSOCIATION FOR IRELAND.***Pres.*: Mr. F. W. Emery, F.R.C.V.S., Dublin  
*Hon. Sec.*: Mr. T. McGinness, B.A., M.R.C.V.S.,  
36 Mount Charles, Belfast  
*Hon. Treas.*: Mr. Hannan, M.R.C.V.S.**Scottish Branch:***Pres.* Dr. O. Charnock Bradley,  
Ryl. (Dick) Vet. Coll: Edinburgh  
*Hon. Sec.* Prof. A. Gofton, Municipal Buildings, Edin.  
(on Service).**NORTH OF SCOTLAND V.M.S.***Pres.*: Mr. W. Brown, M.R.C.V.S., Marischal Coll: Aberdeen  
*Hon. Sec. & Treas.*: Mr. G. Howie, M.R.C.V.S., Alford, Aberdeen  
*Meetings*, Last Saturday in January and August**ROYAL SCOTTISH V.S.***Pres.*: Mr. Reid, M.R.C.V.S., Auchtermuchty.**SCOTTISH METROPOLITAN V.M.S.***Pres.*: Mr. J. Riddoch, M.R.C.V.S., Edinburgh  
*Hon. Sec. & Treas.*: Mr. Jas. Henderson, M.R.C.V.S.,  
Public Health Dept., City Chambers, Edinburgh**WEST OF SCOTLAND V.M.A.***Pres.*: Prof. John R. McCall, M.R.C.V.S., Vety. Coll. Glasgow  
(on Service).  
*Hon. Sec.*: Mr. J. F. Macintyre, M.R.C.V.S.,  
19 Bank Street, Hillhead, Glasgow  
*Hon. Treas.*: Mr. Geo. W. Weir, M.R.C.V.S.,  
88 Crookston Street, Glasgow  
*Meetings*, Second Wednesday, May, Oct. and January

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXXI.

## VETERINARY SOCIETIES.

We have to-day to welcome the advent of another local Veterinary Society—The Derbyshire. A short account of their initial meeting appears on p. 127. and the attendance and the names of those present augurs well for its success. The last new comer was the South Eastern, which also made a very promising start, but, like some other societies, has been badly hit by war conditions. Geographical reasons justified the existence of the South Eastern Society—it was formerly part of the Southern Counties Society, which covered a strip of the south coast 180 miles long by about 30 miles deep south to north, having a string of towns along the coast—Folkestone, Eastbourne, Brighton, Portsmouth, Southampton, Bournemouth, all well served by direct rail from London, but offering much less convenience from east to west. The consequence was that the attendance at meetings was very seldom in proportion to membership, and never in a respectable proportion to the number of men practising in the area covered by the society. Now, the strength of a society cannot be measured strictly by its membership. The real strength is in the number of members who attend the meetings, and take part in the proceedings. For this reason the two southern societies were, and probably will be again, stronger than the old Southern was alone—stronger and more effective for the welfare of the profession.

The same arguments, barring distances, will apply in the case of the Derbyshire Society. Derby, which, presumably, will be the home of the Society, is a main railway centre with a surrounding of populous towns within fairly convenient distances. Birmingham and Sheffield are each rather over 30 miles to south and north respectively; Manchester and Lincoln about 50, Leeds and Liverpool about 60 miles. So that intercommunication should not be difficult, and attendances should be good—and attendances are the chief advantage offered by these societies. Many men belong to several local societies, and find time to attend several times in the year—and there is wisdom in the procedure, even though they may occasionally get a dull meeting. Judging from the attendances at similar meetings in U.S.A., they make less difficulty in leaving a practice for a day or two; and the distances their members travel to a meeting are often much greater than our men ordinarily undertake.

The years to come will need all the unity we can get. There will be rearrangements and innovations, and our legislators then may be even less well informed and more indifferent to the affairs of others than the present men have shown themselves to be. Combinations are forming in many directions, and, as a contributor said last week, in another connection, "If we adjust matters inside the profession it will be an easier matter to alter matters outside."

## BACTERIAL INFECTION OF WOUNDS IN FRANCE.

During the period in which I was attached to a Veterinary Hospital in France, I had many cases through my hands of so-called "fibrous tumour of the neck" occasioned indirectly by bites from horses. It always seemed very strange to me why an ordinary bite should be followed by such a serious complication, and the only explanation I can offer is that there is an infection of the wound by an organism which is indigenous to France. I say "serious complication" advisedly, in view of the time required to bring about resolution, and also of the position of the injury, which is usually on the point of the shoulder or a little above. I have consistently noticed that horse bites which occur in England are not followed by any untoward complication, the wounds rapidly cicatrising and healing. In France it was a very aggravating circumstance, to say the least of it, when, having treated a mange case successfully and being about to discharge the animal, to find one morning a diffuse thickening around the site of an insignificant bite wound.

Surgical extirpation is the only successful treatment; all other methods have proved to be merely waste of time. In the large majority of cases upon which I operated, there was a small opening at the lower edge of the swelling, leading up usually into a large cavity from which there was a constant discharge of pus. No amount of curetting, or syringing with iodine or astringents, did the least good, and in fact, with every succeeding day there was an appreciable increase in the size of the area affected, and I have known cases where it would have required even a foolscap sheet of paper to cover the lesion.

Early operation, therefore, is essential, and there are two methods, one of which is to make a deep incision through skin and fibrous tissues from the opening below to the upper boundary of the swelling, and on either side the skin is then dissected carefully away from the underlying new tissue, the latter being finally removed and the skin sutured. This, however, is very difficult, as there appears to be no line of demarcation between skin and fibrous tissue—one might suppose the condition to be one of hypertrophy of the skin, so closely are the two adherent. The invading tissue has a consistency of cartilage, and attains a thickness of from  $\frac{3}{4}$  in. to 2 in., diffusing itself well up the neck and showing no tendency to diminish when once formed. The muscular tissue beneath becomes hypervascular and bleeds at the least touch, whilst in appearance its surface is roughened and glairy, and covered

with a layer of thick pus. The pus generated from wherever the wound was in apposition to the healthy tissue. However carefully this method may be carried out, the result will not prove satisfactory, as the skin has apparently lost all its vital powers and rapidly shrinks, whilst in many cases new growths of sclerous tissue are observed to form.

The other and most successful method is the radical excision of the whole swelling, including the overlying skin, by which means one is sure of removing the last particle of foreign tissue and exposing healthy tissue to the light and air. Zinc oleate ointment may be smeared over the raw surface for the next three or four days, succeeded then by dry dressing. Six to eight weeks will elapse before a hard cicatrix has formed, and the animal is fit for issue. Even then such a false skin can never replace the true skin, and collar galls are subsequently likely to be frequent.

HAMILTON KIRK, Capt. A.V.C.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### AN EXCEPTIONAL INITIAL LESION OF STRANGLES.

A. Herrera, who reported this case in the *Revista de Veterinaria Militar* for 1916 considers it of interest from its novelty. The strangles localisation in question was a metacarpo-phalangeal arthritis. This lesion, according to Hutyrá and Marek, "often develops in an acute form in advanced periods of the disease"; but it has not been reported as an initial lesion, preceding the general symptomatic manifestations and considerably before the local lesions common in, and typical of, strangles infections.

A young horse, belonging to a remount establishment, presented a warm and painful swelling of the fetlock of a fore limb.

The limb was semi-flexed, and only bore upon the ground very slightly by the fore part of the shoe. The swelling, which at first was limited to the joint, became extended to the peri-articular tissues, completely obliterating the outlines of the bones. It was extremely hard, and spread along the tendinous sheaths of the phalangeal flexors. Coincidentally with this extension of the lesion, general symptoms appeared. The horse was dull, depressed, and without appetite. The rectal temperature was nearly 103.3° F. The mucous membranes were normal.

The first treatment was purely local, consisting of bandages soaked in a 1 in 1000 sublimate solution. This treatment was followed for two days; but the local swelling extended; and the heat and pain became more intense. The general condition remained stationary; the temperature underwent slight oscillations—102.2° F. and a little over 103.6° F.; and the horse did not eat. Cantharides ointment was now applied locally; and electuary containing gentian and nux vomica were given to stimulate the appetite.

On the eighth day of the illness it was noticed that the swelling was fluctuating at its centre. The

cut was maintained; but the sensitiveness to the touch had diminished notably. The horse had weakened considerably. The temperature was higher, the pulse was small and hurried, the conjunctiva showed a cyanotic colour, and the pituitary membrane was reddened and moist. Pressure upon the throat produced cough; and the horse then ejected muco-purulent clots. Swelling of the glands of the throat began.

The swelling of the fetlock was now opened, giving exit to an abundant pus, which at first was creamy, and later thinner and streaked with blood. The pus had necrosed the suspensory ligament; and the same destructive process was commencing in the internal and external lateral ligaments.

The general state of the horse now awakened the suspicion of strangles, which was strengthened by the fact that repeated cases were appearing in the same stud. Pus from the fetlock swelling was, therefore, injected subcutaneously into a rat, and gave positive results. Moreover, the horse rapidly developed a typical strangles infection, which ran its course without showing any further unusual symptoms. Recovery was complete; but some time afterwards an irregular cicatrix still remained in the region occupied by the initial swelling.

Herrera surmises that the virus entered the organism through some solution of continuity in the fetlock region, and this infection by an unusual portal of entry produced an unusual initial lesion.—(*Revista de Higiene y Sanidad Pecuarias*).

##### THE TRANSMISSION OF CYSTICERCOSIS.

Lanlo Hugo reported an interesting case of this nature in the *Hússzemle* for 1914. A pork butcher slaughtered a young pig; the inspector discovered the existence of cysticercosis and ordered total seizure. The pig had been bought from an inhabitant of a town in Hungary; and the butcher, in accordance with the law, claimed compensation from the seller. The seller visited the inspector with regard to the identification of the pig; and the inspector was struck with the unhealthy aspect of the man. Enquiries revealed that he had suffered for a long time from attacks of vomiting, and from diarrhoea alternating with constipation. The pig he had sold had been bred by himself. The inspector upon this formed the hypothesis that the man might himself be affected with tænia and have infected the pigs which he bred. He communicated the facts to a medical man, who put the seller under treatment, and after some weeks caused the expulsion of a *Tania solium*.—(*L'Hygiène de la Viande et du Lait*). W. R. C.

##### JOURNAL OF THE AMERICAN V.M.A.

Dr. W. H. DALRYMPLE, M.R.C.V.S., has been appointed Editor of the Journal of the American Veterinary Medical Association, with office of publication at Baton Rouge, Louisiana. Dr. Pierre A. Fish, the former editor, has entered military service, hence this change became necessary.

Communications should be addressed to Dr. W. H. Dalrymple, Editor, Journal A.V.M.A., 66 Roumain Building, Baton Rouge, La.



### THE DERBYSHIRE VETERINARY ASSOCIATION.

A meeting of Derbyshire Veterinary Surgeons was held at St. James' Hotel, Derby, on Tuesday, Oct. 8th. Mr. J. T. Abell, M.R.C.V.S., of Derby, was voted to the chair.

It was decided to form an Association and that the title should be "The Derbyshire Veterinary Association. There was a large gathering, seventeen members being present, and apologies were received from others for unavoidable absence.

Mr. Alex. Levie, F.R.C.V.S., D.V.S.M. (VICT.), F.R.S.E., Derby, was elected President, and Mr. F. T. Prince, M.R.C.V.S., Ashbourne, Hon. Secretary and Treasurer.

It was agreed that the meetings shall be held quarterly, and that the Annual Subscription be 10/6.

### IMPORTANT CHANGES IN THE ARMY VETERINARY SERVICE IN INDIA.

An important advance in the Veterinary Administration of the Army in India has been made recently by the formation of a Veterinary Assistants Branch of the Indian Subordinate Veterinary Corps.

Hitherto the Indian Subordinate Veterinary Corps consisted of a few British Warrant Officers and N.C.Os. who formed the nucleus personnel of Station Veterinary Hospitals which were utilised for the treatment of the animals of British Units only.

The treatment of animals in Indian Mounted Units was carried out by the Regimental Salutri or Veterinary Assistant, the Officers Army Veterinary Corps being applied to in peace time only when contagious disease broke out. The Administrative Officers of the Army Veterinary Service carried out annual inspections of the Units, but otherwise the Veterinary Service had no direct responsibility regarding the treatment of the animals or control of the Veterinary personnel. On active service, however, the Army Veterinary Corps assumed responsibility in the same way as in the British Army.

The formation of the Veterinary Assistants Branch of the Indian Subordinate Veterinary Corps has altered all this. The Veterinary personnel of all Indian Cavalry, Artillery and Transport Units when transferred to the Indian Subordinate Veterinary Corps will come under the control of the Army Veterinary Service.

The new order improves the pay and grading of the Military Veterinary Assistants, and will tend to greatly raise their status, while the control of all the animals in the country which has now been placed in the hands of the Army Veterinary Service has greatly enlarged the scope of the Army Veterinary Corps in India.

It has long been felt that professional supervision of all the animals of the Army in India should be given to the Veterinary Service and that Service is to be congratulated on at last having been placed in its proper position in this respect.

Full text of the Army Instructions (India) with appendices is given below.

### Army Instruction (India). No. 511 1918.

SIMLA, 21st May, 1918.

#### 511. Formation of a Veterinary Assistants' Branch of the Indian Subordinate Veterinary Corps.

With the approval of the Right Honourable the Secretary of State for India, it has been decided to form a Veterinary Assistants' Branch of the Indian Subord-

inate veterinary Corps. The Corps will consist of 919 veterinary Assistants (including a reserve of 25 per cent) and will be distributed over the various grades, and among the different units, etc., as shown in Appendix III.

Veterinary assistants now serving in the various branches of the Army in India, with the exception of those employed in the Army Remount Department, will, subject to their consent, be transferred forthwith to the above branch on the terms shown in Appendix I.

The terms and conditions of service for new enrolments in this Branch are shown in Appendix II.

The extra expenditure involved is estimated at Rs. 68,109 initial and, ultimately, Rs. 1,03,013 annual recurring, and is debitable to the ordinary grants and heads of accounts affected. Further instructions will be issued showing how the expenditure likely to be incurred during the current year will be met and allocated to the several Divisions.

[37288 (Q.M.G.).]  
D.

A. H. BINGLEY, Major-General,  
Secretary to the Government of India.

#### APPENDIX I.

Terms of transfer for Veterinary Assistants now serving in the various branches of the Army in India, with the exception of those employed in the Army Remount Department, to the Veterinary Assistants' Branch of the Indian Subordinate Veterinary Corps.

<i>Silladar Cavalry.</i>	Status in Indian Subordinate Veterinary Corps.
Present Status.	
Senior Salutri with rank of Jemadar ...	Jemadar
Senior Salutri not holding rank of Jemadar ...	*1st class Veterinary Assistant
Salutri ...	*2nd or 3rd class Vety. Asst. according to length of service and date of qualification.

#### *Indian Mountain Batteries.*

Salutri ...	*2nd class Veterinary Asst.
*Provided they have graduated at an Indian Veterinary College.	

Salutri ...	3rd class Veterinary Asst.
If having undergone only a modified course at an Indian Veterinary College.	

#### *Supply and Transport Corps.*

1st grade Vety. Assistant ranking as Jemadar ...	1st class Veterinary Asst. (a)
(a) These Indian officers may elect for transfer to the Corps and will retain their present rank, and remain on their present terms of service, but will be eligible to be promoted to Senior Veterinary Assistants in the Indian Subordinate Veterinary Corps on passing the necessary qualifying examinations, etc., otherwise they will be included in the cadre of 1st class Veterinary Assistants, Indian Subordinate Veterinary Corps, but will be graded senior in that class.	
(If placed in charge of Transport Corps they will, in the Indian Subordinate Veterinary Corps, receive charge pay at Rs. 10 a month).	

2nd grade Vety. Assistant ranking as Warrant O.	2nd class Veterinary Asst. (b)
(b) These men may be transferred to the Indian Subordinate Veterinary Corps in the grade of 2nd class Veterinary Assistants ranking as Warrant Officers on pay of Rs. 75 a month and, when in charge of Corps, etc., will receive charge pay at Rs. 10 per mensem.	

3rd and 4th grade Vety.

Assistants ... 3rd class Veterinary Assts. (c)

(c) These men may be transferred to the Indian Subordinate Veterinary Corps in the grade of 3rd class Veterinary Assistant, ranking as Warrant Officers, on pay of Rs. 60 per mensem.

#### APPENDIX II.

Terms and conditions of service for the Veterinary Assistants' Branch of the Indian Subordinate Veterinary Corps.

The Veterinary Assistants' Branch will be divided into:—

**Indian Officers.**—Senior Veterinary Assistants—

1st class with rank of Ressaldar; 2nd class, with rank of Jemadar.

(The proportion of Indian officers will not exceed 10 per cent. of the total authorised establishment of the Branch, and will be equally divided between the two classes of Senior Veterinary Assistants).

**Indian Warrant Officers.**—Veterinary Assistants, 1st, 2nd and 3rd class.

The establishment of Military Veterinary Assistants will be maintained to fill:—

(a) Military appointments, viz., Class II Station Veterinary Hospitals, Indian Artillery, Indian Cavalry, Transport Units, Engineer Units, etc., with the authorised reserve of 25 per cent.

(b) Certain civil appointments, Imperial Service Troops, with the authorised reserves of 25 per cent.

**Recruitment.**—Military Veterinary Assistants will be recruited as far as possible from military students at Veterinary Colleges and Schools. Applications for admission to a Veterinary College as a military student will be made by the Officer Commanding the man's unit on India Army Form X-1835, to the Quartermaster-General in India through the General Officer Commanding Division, Divisional Area or Independent Brigade.

Military candidates for admission to the different Veterinary Colleges will be selected annually by the Quartermaster-General in India from the list of men submitted by the various regiments, services and departments, as laid down in paragraphs 61-68, Army Regulations, India, Volume VIII.\* Candidates must bear a good character, be physically fit for service, under the age of 25 years, be of the required educational standard and be recommended by the officer commanding their unit, who will satisfy himself that they will benefit by the instruction given at a Veterinary College or School.

Those who are selected and sign a declaration in the form annexed will be admitted to the Punjab Veterinary College, or other selected Veterinary College, or School, and entered as Indian military pupils to undergo a course of training for veterinary assistants. If they are reported qualified, they will be gazetted to the Indian

**NOTE.**—(i) All appointments to the Corps including transfer of temporary men should, during the period of the war, be considered as temporary, and not be made permanent until six months after the declaration of peace. In the meantime, men transferred to the new Corps will be placed in the various classes as shown above, and will take seniority in those classes according to the dates on which they graduated.

Future promotions will be governed by the terms and conditions of service shown in Appendix II.

**NOTE.**—(ii) All transfers are voluntary; but a man, once having elected transfer, will not be permitted to revert to his original terms of service.

\* These paragraphs are under revision.

Subordinate Veterinary Corps, graded according to the places they have taken at the final college examination, and assigned official numbers. The Director of Veterinary Services may remove from the College, and withhold the certificates of any pupil who fails at any examination, or misconducts himself. Military Veterinary Assistants will not be given their certificates until the close of their service, and should a man be dismissed or discharged for misconduct or inefficiency before completing seven years' service as a veterinary assistant, his certificates will be altogether withheld. Students gazetted into the Indian Subordinate Veterinary Corps may retain the books issued to them whilst in College or School, the selection of books to be retained being left to the discretion of the Principal of each College or School.

Examinations for promotions will be held annually under arrangements made by the Director of Veterinary Services.

The subjects for these examinations will be Regulations, Surgery and Surgical Applied Anatomy, Diseases of cattle, sheep, and camels, Medicine, Materia Medica and Hygiene. Promotion to the next grade will be withheld until all subjects in this examination have been passed.

When candidates fail in several subjects, or do very badly in one, the Director of Veterinary Services may direct that they shall not be permitted to re-appear at the next succeeding examination.

If well reported upon, Veterinary Assistants will be promoted as follows:—

- |   |  |
|---|--|
| (a) To Vety. Assistants, 2nd class          | } After 3 yrs. in 3rd and 5 yrs. in 2nd class, respectively—subject to passing examination mentioned above.        |
| (b) To Vety. Assistants, 1st class          |  |
| (c) Senior Veterinary Assistants, 2nd class | } By selection from Veterinary Assistants who have passed a post-grad. course at a selected Vety. Coll. or School. |
| (d) Senior Veterinary Assistants, 1st class |  |

A Veterinary Assistant degraded by sentence of a Court-Martial will, if restored to his former class, be re-examined, if he passed more than two years before his restoration. If not previously qualified, he may be examined at the same time as the subordinate above him.

Indian officers and warrant officers of the Indian Subordinate Veterinary Corps will take precedence as under:—

- Senior Veterinary Assistants, 1st and 2nd class, after senior Sub-Assistant Surgeons, 1st and 2nd classes.
- Veterinary Assistants, 1st class, after Sub-Assistant Surgeons, 1st class.
- Veterinary Assistants, 2nd class, after Sub-Assistant Surgeons, 2nd class.
- Veterinary Assistants, 3rd class, after Sub-Assistant Surgeons, 3rd class.

Veterinary Assistants in the Indian Subordinate Veterinary Corps will receive the following rates of pay, privileges and allowances:—

**Veterinary Assistants.**—Indian Warrant Officers.

3rd class	...	Pay Rs. 60	*Field allowance Rs. 5
2nd	"	" " 75	" " 10
1st	"	" " 95	" " 10

\* NOTE.—Field allowance (which includes cost of conveyance of baggage when marching by road) is admitted—

- (1) When travelling on duty, on field or foreign service, and while in camp on account of outbreaks of disease amongst military animals. The allowance is inadmissible while at or moving to or from camps of instruction.
- (2) When serving at Port Blair, Aden and Burma.
- (3) When attached to the Viceroy's Body Guard.



The minutes of the previous meeting having been published were taken as read and confirmed.

The Hon. Secretaries announced letters of apology for absence from Messrs. W. Freeman Barrett, T. McGuinness, H. Sumner, R. C. Trigger, W. Jackson Young.

#### REPORT.

The following report presented by the Hon. Secretaries was received and approved:—

Since the last quarterly meeting the following donations and new subscriptions have been received:—

Bolton's Cinema	£ 15 15 0
J. Holland (legacy)	100 0 0
W. Roots	10 10 0
Arnold Spicer	10 10 0
Eastern Counties V.M.A.	10 10 0
J. W. Knowles, Major U.S. A.V.C.	1 1 0

New subscribers:—

Anonymous (H. J.)	£1 1 0
Adamson, J., Major A.V.C.	1 1 0
Anderson, W., Capt. A.V.C.	1 1 0
Blampied, T. Le Q., Capt. A.V.C.	1 1 0
Bloye, P. W., Capt. A.V.C.	1 1 0
Blyth, D., Capt. A.V.C.	1 1 0
Carey, P. D., Major A.V.C.	1 0 0
Calderwood, J. K., Capt. A.V.C.	10 6
Cranford, R. L., Col. A.V.C.	1 0 0
Faithfull, T. J., Major A.V.C.	1 1 0
Farrell, G. H., Major A.V.C.	2 2 0
Fraser, H., Capt. A.V.C.	10 6
Gillies, J., Capt. A.V.C.	10 6
Gordon, T., Capt.	1 1 0
Haigh, T., Capt. A.V.C.	1 1 0
Harris, C. B. M., Lt.-Col. A.V.C.	1 1 0
Heath, F. E., Major A.V.C.	1 1 0
Jones, J. Howard, Capt. A.V.C.	10 6
King, H.	1 1 0
Lake, B. L., Col. A.V.C., D.S.O.	1 0 0
McMenamin, J. C., Capt. A.V.C.	1 1 0
O'Donel, P., Capt. A.V.C.	1 1 0
Rankin, J. F., Major A.V.C.	1 1 0
Rockett, H. C., Capt. A.V.C.	10 6
Sewell, E., Capt. A.V.C.	1 1 0
Shaw, G. K., Capt. A.V.C.	1 0 0
Sparrow, H. D., Capt. A.V.C.	10 6
Stothert, W., Major A.V.C.	2 2 0
Smith, P. W. Dayer, Major A.V.C.	1 1 0
Stirling, R. F., Capt. A.V.C.	1 1 0
Wentworth, N. F.	1 1 0
Baker, E. Whitley (increase)	10 6

The amount of £100 has been invested in War Loan. We have been informed that the N.V.B. and M.D.S. has granted the sum of 7s. 6d. per week to Mrs. M. Johnstone for the twelve months ending August 1st, 1919.

We have been instrumental in arranging with the Ministry of Pensions for the payment of Officers' Pension direct to Mrs. McN., Case 31. No payment had been received since March of this year; and at last Mrs. McN. sought the good offices of the Fund.

#### THE CLEMENT STEPHENSON BEQUEST.

The Hon. Secretaries reported that under the Will of the late Dr. Clement Stephenson, a legacy of £5000, together with a share of the residuary estate, had been bequeathed to the Victoria Veterinary Benevolent Fund under the name of the Victoria Veterinary Benevolent Institution, London, provided that the Fund became incorporated within twelve months of the time of Dr. Stephenson's death.

It was resolved:

That the Council do gratefully accept Dr. Clement

Stephenson's Bequest of £5000 and share of residue, on the conditions attached.

That the necessary steps be taken to incorporate the Society under the Companies Consolidation Acts, 1908-1913, and that application be made to the Board of Trade for permission to omit the word "Limited" from the name of the Society.

That the draft Memorandum and Articles of Association submitted be approved, subject to any alteration required by the Board of Trade and/or the Registrar of Joint Stock Companies.

#### CASES.

Applications numbered 39, 40, 41 and 42 were considered, and it was resolved:

That no grant be made in cases 39 and 42.

That Case 40 be deferred, there being no indication of present necessity.

That the President and Treasurer be requested to make further enquiries in Case 41, and if necessary they be empowered to make a grant not exceeding 10s. per week.

*Renewal of Grants.* The President and Treasurer were empowered to increase the grants made in the most necessitous cases by 50%, and to continue the other grants at the same rates as hitherto. A special grant of £2 was made in case 27 (widow, aged 81) for the purchase of coal or other comforts.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

Wm. E. Blackwell, Capt. A.V.C.	£1 1 0
Thos. H. L. Duckworth, Ashbourne (1917, 1918)	2 2 0
Edward Kitchin, London, E.C. (1914-15-16-17-18)	5 5 0
G. P. Male, Reading	1 1 0
Robt. E. Murison, Capt. A.V.C.	1 1 0
F. T. Prince, Ashbourne (1917, 1918)	2 2 0
W. Dunlop Smith, D.S.O., Lt.-Col. A.V.C.	1 1 0
Eric Wallace, Capt. A.V.C.	1 1 0
F. W. Watchorn, Newtown, Montgomeryshire	1 1 0
Previously acknowledged	1052 3 11
	£1067 18 11

#### The "New" Rabbit Disease.

To the Editor of the Times.

Sir,—In your issue of to-day there is a paragraph entitled "Warning to Rabbit Keepers," stating that a disease, believed to be due to a form of "fluke," has recently appeared over a wide area. It is said that the rabbits die suddenly, without outward symptoms, and that the disease is caused by eating wet greenstuff.

So far as I am aware, rabbits do not suffer from "fluke" disease. Occasionally wild rabbits have been found in which specimens of the common sheep fluke have occurred, but these are wholly exceptional cases. The mode of spread of this parasite is such that there is little likelihood that it could ever attain notoriety in the hutches of suburban rabbit-breeders.

In the liver and among the coils of the gut of rabbits one not infrequently finds small white cystic bodies, varying from the size and appearance of a rice grain to that of a mistletoe berry. These are often mistaken for "flukes," but are actually the developmental stage in the rabbit of the tapeworm of the dog. Offal from rabbits

infected with these cysts should not be fed to dogs. The present serious outbreak is *not* due to worm parasites, but that young tame rabbits are dying in numbers from an intense enteritis set up by a microscopical protozoan parasite (*Eimeria stiedii*) which invades the gut wall, and almost completely denudes the absorbing surface. The disease is very fatal to the young, but old rabbits can harbour the infection without showing definite symptoms. It is spread by resistant cysts passed in the excrement of an infected animal. An apparently healthy but infected doe may thus produce a litter in which there is a heavy mortality.

Preventive measures consist in the destruction or isolation of infected animals, and the careful periodical removal of all excrement. If there is danger from eating wet greenstuff, this is probably due to the fact that dry, powdery excrement, containing the infective cysts adheres much more rapidly to wet than to dry surfaces.

Rabbit-keepers should clearly realise that this disease is brought into the hutch and is spread there by an infected, though not necessarily sick, animal, and not by greenstuff. Whether or no an animal is suffering from the infection can be readily determined by a microscopical examination of a pellet of excrement. Man is susceptible to infection, but few cases of the disease are on record.

R. T. LEIPER, M.D., D.Sc.

Helminthological Department, London School of Tropical Medicine, Royal Albert Dock, E. Oct. 5.  
*The Times.*

#### Bismuth Iodiform Paraffin Paste in injuries to bones.

Writing to *The British Medical Journal*, E. H. Walker, M.B., B.S.LOND., M.R.C.S., Captain R.A.M.C. (T.C.), says:—

"The following is the method of treatment which I now adopt in bony injuries, whether recent or chronic, for it is bony injuries in which this treatment gives particularly successful results compared with other methods.

First, the wound edges are excised; secondly, a free incision is made and loose fragments of bone and foreign bodies are removed; thirdly, the wound is well dried with gauze; fourthly, methylated spirit is swabbed over the wound, and, finally, with the wound as dry as possible, B.I.P. is well rubbed into the surface; a teaspoonful is usually sufficient. The wound is then lightly packed with dry gauze, and dry gauze is placed over the surface.

The following day I usually change the surface gauze, as there may be a little oozing. Then, provided the gauze packing keeps dry, it can be left in for at least a week.

If it becomes very moist with discharge I take it out and mop up the discharge with a dry swab (in contradistinction to bathing it with a wet solution), and then repack it occasionally, gradually allowing the wound to close up.

I do not intend to discuss the pathology, as this has been done by Dr. L. G. Anderson (*Lancet*, March 3rd, 1917), but there are a few points to which I should like to call attention.

Firstly, the reason I emphasize keeping wet dressings away from the wound is because these leave a fluid residue which wets the gauze packing, and is thus apt to give a false impression of the amount of discharge; it also washes out some of the B.I.P.

Secondly, I consider that forcible syringing of deep wounds, especially if they are not carefully dried afterwards, is a very common cause of pocketing and spread of infection along the lines of least resistance. If B.I.P.

is used as described above, I feel sure that many secondary operations for establishing drainage will be avoided.

Finally, in cases undergoing this treatment, an enormous amount of redressing would be avoided, resulting in a great economy of dressings and of time and labour. In addition to this, the patient will benefit by less frequent dressing."

#### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Oct. 11.

##### REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Lt. to be temp. Capt.:—F. Christopher (Aug. 13).

Temp. Hon. Lt. (temp. Capt.) H. A. Crowe to be temp. Maj. while holding a special appt. (Cl. B.B.) (Feb. 25).

Oct. 12.

Maj. (Bt. Lt.-Col.) P. J. Harris, relinquishes the actg. rank of Lt.-Col. on ceasing to hold the appt. of Asst. Dir. of Vety. Servs. (Aug. 16).

Oct. 14.

To be temp. Lt.:—N. Macleod (Sept. 17).

Capt. A. A. Pryer, D.S.O., Dep. Asst. Dir. of Vety. Servs. (Cl. FF.), ceases to be graded for pay (Cl. FF.) (Aug. 21).

Temp. Qmr. and Lt. W. H. Mawdsley, to be Capt. under Art. 330, R. Wt. for pay and promotion (Oct. 1.)

##### TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Oct. 10.

Capt. W. K. Townson relinquishes his commn. on acct. of ill-health contracted on active service, and is granted the hon. rank of Capt. (Oct. 11).

The following casualty is reported:—

DIED—Capt. R. B. Cockburn.

#### Animal photographic portraiture.

We sometimes smile at the old drawings and steel engravings which depict animals with amazingly well-balanced bodies, generally set on quite impossible legs. We make allowances for drawings and paintings, and we try to find out whether reliable contemporary observers of the wonderful animals left word-portraits. Amos Cruickshank's concise and plainly homely picture of Lancaster Comet has caused smiles in many quarters—"He was made and put together like a fat pig"—but it was remarkably effective, as the older breeders in the North can testify.

It was wont to be said that the camera cannot lie, but the camera in the hands of an expert is fit to give any number of points to all the ordinary disciples of Ananias and Sapphira. The camera ought not, perhaps, to be held responsible for the faking of negatives, but in any case it is associated with things which make the delicious gripe. When dealing with such breeds as the Shorthorn, Aberdeen-Angus, Hereford, and Highland, the common photographic temptation is to represent the animals as mathematically straight above and below, and perfectly balanced fore and aft. The thing tends to become a front-rank nuisance. It is artistic impertinence. Nature avoids mathematically straight lines such as we see in many drawings and in some much lauded photographs. The actual departures from the straight and approximately square are sometimes



very slight, as in the case of the Shorthorn Flora 6th or the Highland Fuirery Queen, and from the cylindrical as in the Aberdeen-Angus Everwise, yet the something which is infinitely better remains.

But is an artist not entitled to make the best of his model? He should represent his model at its best, if he can. That is an entirely different matter. Many years ago, when I was writing an article on Highland cattle for a somewhat important publication, I was offered a photo of a bull, taken from a painting by a famous artist. I did not accept it. Was it not good enough? It was by far too perfect. The animal might have been made in the foundry.

Great pressure is frequently put on photographers to produce what are termed high-class portraits. Owners want something better than the truth. I should go so far as to say, Let them have the truth in love, or the veracities mainly on the sunny side. Photography ought to be of great historic value. As now practised by many I am afraid it is storing up for itself things which will furnish caustic verdicts in future days. May I repeat that I like to see animals "well taken," but they must be the real animals, not dandified caricatures.—JAS. CAMERON, in *Live Stock Journal*.

#### WIND AND WATER.

The following little incident I heard in a store in a small town in the South of Ireland a few days ago. I call the place a store, but in reality it is a public house. The licensing laws differ somewhat in this part of the United Kingdom (anyhow at present!) They sell nearly everything from ale to Zambuck.

A carrier came in one morning for his usual "half-un" and wanted another "weight" (21lb.) of potatoes. The woman of the house knowing the man and his establishment asked him what he did with the potatoes he was getting, as he had had seven weights. Well, he said, I give them raw in the morning to the horse for his wind and in the evening I give them boiled for his water.

LEARNING.

#### OBITUARY.

E. M. DIXON, Capt. C.A.V.C.

Graduated, Lond: May, 1892.

Capt. Dixon died on active service, 27th Sept., 1918.

ROBERT BOWES COCKBURN, Capt. A.V.C.

Lond: July, 1911.

Capt. Cockburn died whilst on service: date and place not stated.

Mr. ALEXANDER STRACHAN, a well known veterinary surgeon in Aberdeenshire, died on Saturday, at Mansfield, Fyvie. He was 79 years of age, and was a native of Tarves. Mr. Strachan is survived by a family, his wife having predeceased him about six years ago.

#### Personal.

REYNOLDS.—On the 11th Oct., at Heathfield, Royston, Herts, the wife of Capt. E. Brayley Reynolds, A.V.C., Mesopotamia Expeditionary Force—a son.

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
		Cases Confrmd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaught-tered.
		Dogs	Other Animals											
Gr. BRITAIN.														
Week ended Oct. 12		11		5	5	1	2	1	1	22	33		27	11
Corresponding week in	1917			4	4			1	1	20	33	9	31	13
	1916			11	12				5	15	24	2	58	34
	1915			9	9					16	27		61	228
Total for 41 weeks, 1918		26	1	197	227	3	13	26	71	3648	6874	261	1121	448
Corresponding period in	1917			353	402			23	42	1989	3791	415	1849	901
	1916			419	493	1	24	43	110	1784	4015	199	3651	8839
	1915			455	517			40	71	1660	1418	164	3269	14273

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Oct. 15, 1918

† Counties affected, animals attacked:—London 1

Excluding outbreaks in army horses.

#### IRELAND.

Week ended Sept. 28

Corresponding Week in	}	1917	...	...	...	...	...	...	3	...	...	
		1916	...	...	...	...	...	...	8	11	49	
		1915	...	...	...	...	...	...	7	2	43	
Total for 39 weeks, 1918			2	2	...	...	...	...	92	222	22	72
Corresponding period in	{	1917	3	5	...	...	1	1	40	292	185	1082
		1916	3	7	...	...	...	...	54	317	255	1481
		1915	1	1	...	...	1	3	58	314	193	1105

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Sept. 30, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1581

OCTOBER 26, 1918.

VOL. XXXI.

## THE ANNUAL REPORT OF THE CHIEF VETERINARY OFFICER TO THE BOARD OF AGRICULTURE: 1917.

The Annual Report, as usual in these days, is brief and condensed; but it is eminently business-like, and reports a great amount of work.

The longest and most detailed section, which is also the most interesting and important, is that upon Swine-fever. This is almost wholly concerned with the results of serum treatment during the period from October, 1916 to September, 1917, and is very valuable. Records were kept of outbreaks in which serum was used, and of others in which for various reasons it was not; and the report compares the results in "serum" and "non-serum" outbreaks with considerable detail. The figures speak well for serum treatment. In the serum outbreaks, as compared with the non-serum, there were substantial decreases in the death-rate and number of pigs killed for food respectively, with a corresponding increase in the number of pigs freed. The birth-rate during the isolation period in serum outbreaks was more than double that in non-serum outbreaks. Evidently serum treatment is succeeding; and owners appear to have realised this even in 1917, for we read that "the proportion of suitable cases (*i.e.*, cases in which it was not certain that infection had already spread to all the pigs) in which serum was accepted was 80.5 per cent." The most unsatisfactory feature of serum treatment at present is the number of cases in which, for one reason or another, it cannot be adopted. In 564 cases (more than 20% of the outbreaks during the period) it is stated that "conditions were unsuitable for treatment;" while in no less than 220 of the 2531 outbreaks in the year the position was that "no pigs remained alive on the premises for treatment at the completion of diagnosis." This last condition suggests the old trouble—the delay in reporting; which doubtless also had much to do with the 564 cases in which "conditions were unsuitable." Obviously, unless this can be remedied, serum can never give anything like its maximum results.

Some of the details regarding glanders are of interest. There were 25 outbreaks in the year, involving 63 affected animals; and the total number of animals on infected premises was 470. Of the 63 affected animals, 19 were clinical cases, and the remaining 44 were detected by mallein. These 44 reactors amounted to 9.7 per cent. of the animals tested; and 11 of these, or exactly a quarter, only gave a definite reaction to the second test. It is noteworthy that no less than 6 of the 25 outbreaks occurred in horses engaged in colliery work, and 2 of these were discovered through the operation of the Mines Act, which is doing much good against

glanders. As 12 outbreaks occurred in London and the adjoining counties of Essex, Kent, and Middlesex, this leaves only 7 outbreaks in the rest of Great Britain, except those in the colliery horses.

Not very much is said concerning anthrax; but what does appear is interesting. It is noticeable that over 80% of the outbreaks occurred on premises which, so far as was known, had been previously clean. The tabulated results of inquiries as to the probable source of origin in these are published, and cast great suspicion upon the use of imported food-stuffs and artificial manures of animal origin, especially the former. This is by no means the first evidence we have had tending to incriminate imported food-stuffs in particular; and its frequent occurrence is more than suggestive. Another important, and a very unsatisfactory point is the number of cases, amounting to about 15 per cent. of affected animals, in which the disease was not reported until the carcasses were "caught"; as it were, at knackers' yards or slaughter-houses. This is an old difficulty, which does not seem to lessen as time goes on. As the Chief Officer remarks, it "calls for firm action by the Local Authorities when cases are brought to light."

The section upon sheep-scab is mainly concerned with details regarding the transmission of the disease between the different countries in the United Kingdom. A table is given showing the proportion of outbreaks in England attributable to infection from Scotland, and shows that, as in 1916, we imported disease from Scotland to a serious extent.

Here it is satisfactory to note that the local regulations imposed in Cumberland, which require double-dipping of all sheep arriving at farms from Scotland, have proved a success in that county; this supports the Board's view, expressed in the last annual report, that the measure is the best guarantee against the importation of infection. Wales remained seriously infected during 1917, but did not cause many outbreaks; and the 9 outbreaks which did occur were confined to the counties bordering upon the principality. The number of cargoes from Ireland which contained affected sheep was decidedly higher than in 1916. In connection with this disease we should remember that this year the figures, up to the present, are much better than those for 1917.

Hardly anything is said of parasitic mange, beyond the remark that, "owing to war conditions," it has shown a tendency to spread. It certainly has; and the tendency has become much more manifest since the expiration of the period under report, doubtless from the same cause.

Very little is said of the other work at the Board; but it is noted that the Laboratory issued 43,290 average doses of anti swine-fever serum, and 14,560 doses of anti-abortion vaccine, which speaks well for the popularity of the Board's vaccine therapy. Altogether the report is an interesting summary of a years good work, and is well worth the small cost of two-pence to practitioners.

## AVIAN DISEASES.

This week we reprint the concluding portion of a long report upon an outbreak of Fowl Typhoid, the preceding portion of which appeared in our issue of October 5. It is taken from the *Journal of the American Veterinary Medical Association*, and was presented at the Annual Meeting in September, 1915: we have given it here almost in full—some tables and details are omitted, but there is sufficient to show the amount of work that was put into the investigation. It was carried out at one of the many State Experiment Stations in U.S.A., and though it cannot be said that such reports are common there, they are not infrequent in connection with avian diseases. In French and other continental journals, too, pathological notes have been fairly frequent during the last 25 years—and were by no means unknown earlier.

There are two main reasons which probably account for the neglect of diseases of the smaller domesticated animals, including fowls, in this country for the last hundred years. One was, and in a measure is still, the high value of the horse, as well as of pedigreed cattle. The other, the abominable neglect of our agriculture as a national asset by successive governments.

The supersession of the horse by motor traction was the means of turning the attention of many of our veterinarians to the diseases of the dog and cat, men who had previously declined to trouble themselves with such cases. There are still men in practice—not old men at that—who will not, or cannot, get beyond the old faiths. At the present time there are "Poultry Experts" attached to various institutions who, presumably, undertake what veterinary work is required; and some who supply instruction and advice through the columns of the "weeklies."

## THE L.G.B. AGAIN.

Our readers will notice that under the heading of "Clean Milk Supply," in report of meeting of Council R.C.V.S., the testing of cattle with tuberculin may be placed under control of the Local Government Board: and that a letter has been submitted on the question. It is not the first time that cattle diseases have been claimed as falling in the domain of the L.G.B.

## Royal College of Veterinary Surgeons.

## SPECIAL MEETING OF COUNCIL.

A Special Meeting of the Council was held at the College, 10 Red Lion Square, London, W.C.1, on Friday, October 18th, when the following members were present: Mr. F. W. GARNETT, President, in the Chair; Maj. J. Abson, Mr. G. A. Banham, Maj.-Gen. L. J. Blenkinsop, Mr. J. C. Coleman, Sir John M'Fadyean, Mr. S. H. Slocock, Sir Stewart Stockman.

The minutes of the previous Special Meeting of Council were read and confirmed.

The SECRETARY announced that he had received apologies for absence from the following members:—Messrs. Bradley, Clarkson, Dunstan, Lawson, McKinna, Mulvey, Price, Thompson, Trigger, Wilson.

On the motion of Sir Stewart Stockman, seconded by Sir John M'Fadyean,

It was resolved: That the following alteration to Bye-law 80, passed at the previous special meeting, be confirmed, and that the seal of the College be attached thereto:—

"Each candidate for the office of Examiner shall, at least fourteen days before the election, intimate in writing to the Secretary his willingness to be appointed, and submit with his application a statement of his qualifications." The remainder of the Bye-law to stand as at present.

*Linseed Oil supplies.* A letter was received from the Chairman of the United Kingdom Linseed Oil Consumers' Association stating that the scheme of distribution had not yet been settled, and that a further communication would be sent in due course.

*Mettam Appeal.* A copy of an appeal for a Civil List Pension to be granted to Mrs. Mettam was received, and

It was resolved: That a Special Committee consisting of: The President, Maj.-Gen. L. J. Blenkinsop, Sir John M'Fadyean, and Sir Stewart Stockman be appointed with power to take such action in support of the appeal as they may think necessary.

*Clean Milk Supply.* A draft letter to the Ministry of Food was submitted, pointing out that the testing of Cattle with Tuberculin is a veterinary matter which should be under the control of the Board of Agriculture and Fisheries, and not of the Local Government Board. The draft was approved and ordered to be transmitted to the Ministry of Food, a copy to be sent to the Board of Agriculture and the Local Government Board.

## THE VETERINARY TRIBUNAL.

A meeting of the Veterinary Tribunal was held at 10 Red Lion Square, London, W.C.1, on Friday, 18th inst., when the following members were present:—

Mr. F. W. Garnett, Chairman; Messrs. G. A. Banham, H. J. Dawes; Sir John M'Fadyean; Messrs. S. H. Slocock, J. Willett, W. Woods.

The following cases were dealt with:—

GREENWAY, Edward, Prospect House, Church Street, Frodsham. Age 30. Category A. N.S.R.'s application allowed. Man not to be called up till 18th Nov., 1918.

HOLROYD, J., 1 Simmons Street, Blackburn. Age 30. Grade 3. Temporary exemption allowed for six months, to 18th April, 1919.

CORMACK, J. L., 38 Holyhead Road, Coventry. Age 31. Grade I. Temporary exemption allowed for three months, to 18th January, 1919.

HUNTING, C. S., 16 Forest Road, Loughborough. Age 31. Grade I. N.S.R.'s application allowed. Man not to be called up till 18th November, 1918.

FORREST, R. L. C., Carlisle House, Towcester. Age 33. Grade I. Man's application refused. Not to be called up till 18th November, 1918.

LAYCOCK, H. R., 64 Fitzwalter Road, Sheffield. Age 33. Grade I. N.S.R.'s application refused. Conditional exemption granted, to remain.

SEARBY, B. A., Ramsey, Hunts. Age 34. Grade I. N.S.R.'s appeal refused. Conditional exemption granted to remain.

JONES, J. R. A., Russell Street, Gloucester. Age 30. Category A. N.S.R.'s application refused. Conditional exemption, to remain.

TRIGGER, William, Queen Street, Newcastle, Staffs. Age 35. Grade B1. Temporary exemption allowed for three months, till 18th January, 1919.

STANLEY, P. A., 15 College Avenue, Tavistock. Age 38. Grade I. Temporary exemption allowed for three months, till 18th January, 1919.

MUNBY, J. C., 21 Cliffe High Street, Lewes. Age 42. Grade I (B1). Temporary exemption granted for three months, till 18th January, 1919.

SUGDEN, F. H., Stanton House, Grantham. Age 40. Grade II. Temporary exemption granted for three months, till 18th January, 1919.

HUDSON, R., 29 Bridgegate, Retford, Notts. Age 42. Grade II. Temporary exemption granted for six months, till 18th April, 1919.

BRITTAI, H. A. G. K., 16 Redcar Road, Guisborough. Age 41. Grade II. Temporary exemption granted for three months, till 18th January, 1919.

THOMPSON, F., 4 Northumberland Street, Morecambe. Age 51. Grade II. Temporary exemption for six months, till 18th April, 1919.

CONCHIE, J. W., 30 Station Hill, Kidderminster. Age 41. Grade III. Temporary exemption for six months, till 18th April, 1919.

HOWE, A. B., Cromford Road, Wirksworth, Derbyshire. Age 43. Grade III. Temporary exemption granted for six months, till 18th April, 1919.

WYNNE, J. H., Tan y Craig, Denbigh. Age 49. Not examined. Man's application allowed. Temporary exemption granted for six months, till 18th April, 1919.

NIXON, S. H., 91 Wicker, Sheffield. Age 36. Grade II. N.S.R.'s application refused. Temporary exemption granted for six months, till 18th April, 1919.

CUNDELL, F. H. W., 30 Marlborough Road, Swindon. Age 40. Grade I. N.S.R.'s application refused. Temporary exemption granted for six months, till 18th April, 1919.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

J. W. Nolans, Birr, Ireland	(1916-17-18)	£3	3	0
R. K. Porteous, Capt. A.V.C.		1	1	0
W. H. Preston, Capt. A.V.C.		1	1	0
T. L. Shea, Maj. A.V.C.		1	1	0
Previously acknowledged		1067	18	11
		£1074	4	11

**A REPORT UPON AN OUTBREAK OF FOWL TYPHOID.**  
By WALTER J. TAYLOR, Assistant Professor of Veterinary Science, College of Agriculture, University of California.

(Concluded from p. 108).

In order to ascertain the period of incubation, study the clinical symptoms of the disease, carry on some inoculation experiments and verify our pathological findings, we secured a number of fowls of various breeds from a local poultry supply house.

Inasmuch as this disease had been described as affecting the normal blood content, the examination of the blood was begun as soon as the experimental birds were inoculated. The results of these examinations were as follows:—

Table No. I. (Abridged).

Experimental Fowl No. 1. White Leghorn Cockerel.

	Temp.	Red Cells.	Leucocytes.
Aug. 8	108.1	3840000	20220
Injected 1 c.c. 30 hour bouillon culture in wing vein at 6 p.m.			
10	109.4	3332000	35600
	Diarrhoea present.		
14	107	2592000	89440
21	106.4	2924000	51280

At this date we learned that this bird had been fed viscera from a fowl out of the affected flock a couple of weeks before.

This bird was in apparently perfect health at the time it was killed and a post-mortem examination made. (Aug. 29). The only pathological lesion found was a slightly enlarged and dark coloured liver. Cultures were made on slant agar from the spleen, liver and kidneys. A pure culture of the organism under observation was obtained from the spleen. The tubes inoculated from the liver and kidneys remained sterile.

Plate cultures in series made from the rectum showed, among many others, probably colon, several colonies resembling those of the organism causing fowl typhoid. From one of the colonies, *Bacterium sanguinarium* was recovered and was shown by the cultural characteristics and the morphology.

[Four other experiments are quoted with temperature and blood counts as in No. 1. One was inoculated with bouillon culture—died 11th day. One, fed spleen and portion liver from previous bird—recovered. Two, fed cultures of *B. sanguinarium*, each died on 8th day. Tables of differential leucocyte counts are given].

The tables show that the increase in leucocytes is confined almost entirely to the polymorphonuclear variety which of course affects the total percentage of the other varieties.

In view of the fact that our findings differ somewhat from those of Moore and Dawson, we give below what we found to be the morphological, cultural and biochemical properties of *Bacterium sanguinarium*.

**Morphology.** The individual organisms are short rods with rounded or somewhat pointed ends. They usually occur singly but in clumps or masses from tissue, while in culture they may appear in pairs united end to end. In size they vary from .3 to .5 microns broad and 1 to 2 microns long. There seems to be a peripheral arrangement of the protoplasm observed when stained with fuchsin or methylene blue. This is especially noticeable in smears made from diseased tissue. It is Gram negative.

**Cultural and Biochemic properties.** The organism is aerobic and facultative anaerobic. It grows readily at from 34 to 37.5 degrees centigrade, somewhat less vigorously at room temperature.

Results are also given on Plain bouillon, Sugar-free bouillon, Agar, Gelatin stab, Milk, Litmus milk, Potato, Egg medium.

**Action on sugar.** *Dextrose.* There is uniform cloudiness throughout the tube in 24 hours. The reaction is acid but no gas is formed. On further incubation the acidity becomes more pronounced but no gas is formed even at the end of 72 hours.

*Lactose.* A slight cloudiness appears in the open arm and curvature of the tube in 24 hours although the closed arm remains perfectly clear: no gas is formed. The reaction is slightly alkaline, becoming more alkaline upon further incubation, with slight sediment.

*Saccharose.* A very slight cloudiness appears in the open arm of the tube in 24 hours: the closed arm is clear. No sediment occurs: the reaction is at first

neutral becoming alkaline in 72 hours: no gas is formed.

**Resistance of the organism.** The action of direct sunlight upon the organism destroyed it in 25 minutes. It will live for 32 hours in the dark in the dried condition. It is killed by a temperature of 60° C. in ten minutes.

A 3% solution of phenol destroyed it in 8 minutes.

**Inoculation Experiments on other animals.**  
**Guinea Pig.** A female guinea pig of 460 grammes weight was inoculated per sub cutem with .3 c.c. of a rich bouillon culture of *Bact. sanguinarum* on Aug. 15 and was found dead at 8 a.m. on Aug. 20. The organism was recovered from the tissues.

During the past few years quite a little attention has been accorded to a disease of fowls which although primarily being studied as a disease of young chicks is now recognised as affecting adult fowls. This disease is known under the names of bacillary white diarrhoea in chickens and also as fatal septicæmia of chickens. In 1908 Rettger and Harvey published their findings upon the study of this disease and announced the discovery of an organism which they named *Bacterium pullorum*. In 1912 Jones reported finding this organism in a fatal outbreak of disease in adult fowls. Since Jones reported his findings it has become a well established fact that young chicks which have recovered from this disease may harbour the germ and when mature transmit it through their eggs as adult fowls.

Because of a similarity to a certain extent of the morbid anatomy in the disease caused by *Bacterium sanguinarum* and that produced by *Bacterium pullorum* in adult fowls, we give a comparison of the morphology, cultural, biochemic properties, and the resistance of the two organisms. [Table omitted.]

#### SUMMARY.

A careful review of the work done by us during our investigation of this disease would warrant the conclusion that we were dealing with the disease described by Moore in 1895 as Infectious Leukemia, confirmed by Dawson in 1898, and studied as Fowl Typhoid by Curtice in 1902.

We have found that there are certain differences observed by these writers to which we wish to call special attention. Moore states that "diarrhoea is not present," while Dawson observed that "there is a profuse diarrhoea."

In the same way Dawson describes the organism as "coagulating milk in one day," while Moore announced a "saponification of milk after a period of incubation" and no coagulation.

During our experiments and as described by the owner in the outbreak resulting in the investigation, diarrhoea was present in about 80% of the cases. Again, we have found the organism to saponify milk in four to five weeks while no coagulation occurred.

Moore has called attention to the fact that examination of the blood of a diseased fowl, Toisson's fluid being used as a diluting agent, showed that numerous red corpuscles appeared to take the blue stain more or less intensely. Ward, in his bulletin on fowl cholera, draws attention to certain cells not leucocytes, taking the blue stain and described at some length the morphology of these cells. Undoubtedly Ward was describing what latre Warthing designated as "thrombocytes." Burnett has called attention to these cells and describes them as being "undoubtedly the result of degeneration."

During the work just completed on this disease, we wish to corroborate the findings of Moore. In making examinations of the blood of diseased fowls, using Toisson's fluid as a diluent, we have found in every case red cells showing all the characteristics of a normal red blood cell of healthy fowls, except that they were stained more or less intensely blue. As many as nine of these cells have been observed within the 9 sq. mm.

ruled space of the Zappert-Ewing counting chamber. The so-called thrombocytes were also noted and compared as to morphology drawn. We have not found these blue stained red cells in examining the blood of normal fowls.

#### CONCLUSIONS.

A study of the work done by us seems to justify the following conclusions:

1. Fowl typhoid is a specific disease of fowls caused by *Bacterium sanguinarum* occurring sporadically and causing heavy losses among affected flocks; and unless properly investigated may easily be mistaken for fowl cholera because of its high mortality.

2. The specific morbid conditions consist of an enlarged liver containing necrotic areas, an enlarged spleen and a general anæmic condition of the serous and mucous membranes together with a marked increase in leucocytes and a corresponding decrease of the red cell content of the blood.

3. The increase in leucocytes seems to be confined to the polymorphonuclear variety.

4. Fat, well-conditioned, adult fowls are more susceptible than young, nearly mature growing birds.

5. Birds may contract the disease by the ingestion of pure cultures of *Bacterium sanguinarum*.

6. Birds fed upon the offal of other birds dead of this disease show a mild non-fatal form of the disease, tending to recovery.

7. There is evidence that recovery from this mild form produces more or less of an immunity. Further investigations upon this point is needed.

8. The power of some of the red corpuscles of the affected fowls to take the violet stain, when the blood is diluted in Toisson's fluid is especially noticeable in this disease.

9. While the lesions produced in fowls which are infected with *Bacterium sanguinarum* resemble in many respects those produced by *Bacterium pullorum*, and although there is a still closer resemblance in the biological characters of the two organisms, there is enough difference to warrant the conclusion that they are distinctly different diseases.

[A list of works referred to is given, six of which are Bulletins, or reports of work at Agric. Expt. Stations.]

#### EXTRACTS FROM DISCUSSION.

Dr. K. F. Meyer: Through the courtesy of Dr. Haring I was able to autopsy, the following year, some of the fowls from the same flock, and I was able to isolate the same organism and to corroborate his findings. We were vitally interested in this organism from the viewpoint of its relation to the typhoid bacillus and to other organisms, and our work was in progress when a publication appeared in which practically all the conditions which we intended to investigate were already thoroughly discussed, namely, this bacillus of fowl typhoid is closely related to the *Bacillus typhosus*. It is gratifying to find others who support us. We were able to agglutinate this organism very satisfactorily.

Dr. Christiansen: In the first place it is not generally supposed that typhoid is able to exist in the body of a chicken. Statements have been made, I believe, as to the length of time required for the body of a chicken to rid itself of the typhoid. We found that certain strains of typhoid are much more pathogenic in some chickens than in others. Working with the infected strain we found we could recover the typhoid from the blood of a chicken eight hours after inoculation. Furthermore, after nine hours inoculation, the chicken was dead, but whether or not that was due to shock or whether it was due to the toxicity of the typhoid, we are not able to state.

Another interesting observation is that the agglutination of the typhoid, or rather the conglutination of the

various strains of fowl typhoid, differ from ordinary typhoid serum. For instance, we find that a rabbit immunised with the army and navy strain was protected against a lethal dose of fowl typhoid organism.

These experiments we hope to have recorded in the near future.

Dr. Eichhorn: I think it would be of interest to mention the experiments which are now being carried out in the pathology division of the Bureau of Animal Industry with the *Bacillus pullorum*—as to its diagnosis in chronic cases. The preparation used is somewhat similar to that for the diagnosis of tuberculosis, but of course it represents only a product of the organism. The intradermal test of a chicken is made and the reaction is somewhat similar to the tubercular reaction in fowls. The results are not conclusive but are very promising, and aim to make possible the determination of the disease in its chronic form when usually the ovaries are affected, and in that way separate the diseased animals from the healthy flock and prevent subsequent infections.

#### THE CENTRAL VETERINARY SOCIETY.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

The Annual General Meeting was held at 10 Red Lion Square, London, W.C., on Thursday evening, Oct. 3rd. The President, Prof. G. H. WOOLDRIDGE, occupied the chair, and the following Fellows were present:—Messrs. W. Roger Clarke, H. D. Jones, J. W. McIntosh, H. J. Parkin, S. H. Slocock, E. L. Stroud, W. N. Thompson, J. Willett, and Hugh A. MacCormack, Hon. Sec.

On the motion of Mr. Willett, seconded by Mr. McIntosh, the minutes of the last annual general meeting were taken as read and confirmed.

*Correspondence.* It was announced that letters regretting their inability to attend had been received from Mr. N. Almond and Mr. T. Salusbury Price, and also a telegram from Maj. W. S. Mulvey.

Mr. H. H. Whitlamsmith wrote, tendering his resignation as a Fellow of the Society, and it was unanimously decided that the Hon. Secretary should write to Mr. Whitlamsmith saying that the President and Fellows regretted the decision at which he had arrived, and hoped he would reconsider it.

#### ANNUAL REPORT AND BALANCE SHEET.

The Hon. SECRETARY presented the following annual report:—

Mr. President and Gentlemen,—The Council are pleased to be able to announce that though we are still going through arduous times, the session 1917-18 has been a successful one. Two Fellows have been elected, and one has resigned. The annual meeting was held in October, at which Prof. G. H. Wooldridge was unanimously elected President. Five ordinary, one special, and two Council meetings have been held, with an average attendance of 15 at the ordinary meetings.

In previous years we have had monthly meetings from October to July, but it was thought better last session, as so many of our Fellows are doing military duties, and considering the great stress of the times, to have meetings only in alternate months.

It was decided not to have an annual dinner till more propitious times.

The following papers were read:—Capt. J. Malcolm Armfield, A.V.C., "A few diseases affecting animals in Northern Rhodesia." The paper was exceedingly interesting as most of the diseases described were tropical—quite new to the Fellows. The President, Prof. G. H. Wooldridge, gave a paper on "Acne and Impetigo," in which he dealt fully with the subject.

In January a special meeting was held at which Mr. H. D. Jones read a paper on "The rationing of horses; and some of its ill-effects due to insufficient and inferior food." The subject was well discussed. Letters, embodying the resolution passed at the meeting were sent to the Hay Controller, and to the Horse Food Controller, with satisfactory results. At the May meeting Mr. G. H. Livesey, brought forward the following proposition: "To consider the position of Veterinary Surgeons under the new Military Service Act." After giving the matter great consideration, it was decided to communicate with the Minister of National Service, and enclosing resolution passed; copies were sent also to the President of the Royal College of Veterinary Surgeons.

In response to a letter from Mr. Leslie Scott, Q.C., M.P., we discussed the question of "The feeding of horses in relation to their ability to perform their work, and the prevention of cruelty." The resolution was embodied in a memorial which Mr. Leslie Scott presented, at the head of the deputation to the Home Secretary; who was accompanied by the Commissioner of Police and the Horse Food Controller. Some improvement in the conditions resulted therefrom.

We have to thank the following Fellows for exhibiting post-mortem specimens: Prof. G. H. Wooldridge, Messrs. W. Perryman, H. D. Jones, and F. W. Willett. We hope this session that we will have a larger number brought forward. Specimens are always interesting and instructive.

The Council desires again to make a special appeal to Fellows still remaining at home, and would urge them to endeavour to put in a more regular attendance at the meetings and thus help the Society to carry on its useful work during the war.

The balance brought forward and the receipts for the year amount to £99 10s. 7d.: the expenses were £53 1s. 6d.: leaving a balance of £46 9s. 1d.

*The Balance Sheet.* The Hon. TREASURER, Mr. E. L. Stroud, in response to a suggestion from the President, that he might wish to make some remarks on the balance sheet, said he thought that, considering the times the country was going through, the balance sheet was very satisfactory. The Society had been able to pay its way, and there was a fair balance in hand at the bank.

The PRESIDENT remarked that the balance sheet showed that the Society's funds had increased by £2 8s. 8d. during the past year, the balance brought forward from the previous year being £44 0s. 5d, and the cash at bank and the Treasurer's hands at the end of the year being £46 9s. 1d.

Mr. WILLETT, in moving the adoption of the report and balance sheet, thought the Society had every reason to congratulate itself on having been able to carry on and to pay its way considering the strenuous year through which it had passed.

Mr. THOMPSON seconded the motion, which was carried unanimously.

#### ELECTION OF OFFICERS.

*President.* The Hon. Sec., in moving the re-election of Prof. G. H. Wooldridge for the forthcoming year, said that not only the Council, but several Fellows by whom he had been approached were unanimous in their desire that Prof. Wooldridge should be re-elected to the position he now occupied. Prof. Wooldridge knew the ropes of the Society to the finger-tips; under his presidency the Society had done remarkably well during the past year, and he was sure the Fellows could not do better than re-elect him. (Hear, hear).

Mr. WILLETT formally seconded the motion, which, on being put to the meeting by the Hon. Secretary, was carried with acclamation.

The PRESIDENT, who was received with applause, said it afforded him much pleasure to accept the honour

the Fellows had again conferred upon him, and with their assistance he hoped that during the forthcoming year the Society would be able to do as good work as it had done in the past. Its actions had not always met with favour, and sometimes it had got mildly called over the coals by the Royal College of Veterinary Surgeons, but the Fellows did not mind that, because they thought it might have done some good in making the College take further action.

**Vice-Presidents.** On the motion of Mr. Willett, seconded by Mr. McIntosh, Messrs. N. Almond, G. H. Livesey, W. Roger Clarke and J. B. Buxton, were unanimously re-elected Vice-Presidents.

**Council.** On the motion of Mr. W. Roger Clarke, seconded by Mr. E. L. Stroud, the Council, consisting of the following gentlemen, was also unanimously re-elected: Messrs. R. J. Foreman, H. D. Jones, J. W. McIntosh, F. G. Chamberlain, W. S. King, W. N. Thompson, J. Willett, H. King, W. R. Davis, H. J. Parkin, and F. W. Willett.

**Hon. Treasurer.** The PRESIDENT, in moving the re-election of Mr. E. L. Stroud as Hon. Treasurer, said that that gentleman had acted so excellently in that capacity for so many years past that no encomiums were required to urge his re-election.

The resolution was seconded and supported by several Fellows, and carried unanimously. Mr. Stroud briefly acknowledged the compliment.

**Hon. Secretary.** The PRESIDENT said it afforded him much pleasure to move the re-election of the Hon. Secretary, Mr. MacCormack. The Fellows had only one objection to him, namely, that he moved about so slowly and would not get his injured leg better. (Laughter). He was the kind of man that kept them all up to the scratch. He thought the Society could never have a better Secretary, even if it was possible to have had so good a one. (Hear, hear).

Mr. WILLETT, in seconding the motion, said it was apparent to all the Fellows that the Hon. Secretary was slowly getting better. Personally, he believed that if Mr. MacCormack placed himself under a veterinary surgeon instead of a doctor he would get better much quicker. (Laughter).

The PRESIDENT said that the motion before the meeting was that the Hon. Secretary be re-elected.

Mr. SLOCOCK: On condition that he be fired and blistered! (Laughter).

The motion was then put, and carried with acclamation.

The HON. SECRETARY briefly thanked the Fellows for their further mark of confidence in him.

**Trustees.** The PRESIDENT, in moving the re-election of Messrs. S. H. Slocock, J. Willett, and E. L. Stroud as Trustees, said that the funds seemed to be pretty safe in their hands, and as they had not given any trouble, it was desirable that they should be re-elected.

Mr. JONES seconded the motion, which was carried unanimously.

**Hon. Auditors.** The PRESIDENT said that, according to the Rules, one of the Auditors must be a member of Council, and the other a Fellow of the Society not on the Council. He accordingly moved that the present Auditors, namely, Mr. W. Roger Clarke, representing the Council, and Mr. Eaglesham, representing the remaining Fellows, be re-elected.

Mr. MCINTOSH seconded the motion, which was carried unanimously, and the meeting terminated.

HUGH A. MACCORMACK, Hon. Sec.

According to the annual report of the Salford Veterinary Inspector, during the past year 1137 horses were prepared for human consumption in the public slaughter-houses in the Salford Cattle Market.

## VETERINARY MEDICAL ASSOCIATION OF IRELAND.

A general meeting was held on Friday, May 24th, in the Gresham Hotel, Dublin. Prof. J. J. O'Connor, President, occupied the chair, and the other members present were Messrs. Watson, Cushnahan, Norris, Neary, J. O'Brien, W. W. Malone, Profs. Craig and Browne, Capt. Reavy, Messrs. P. J. Howard, R. H. Lambert, Daly and J. B. Dunlop.

The minutes of the previous meeting, which had been circulated, were taken as read and signed.

The following new members were unanimously elected to membership:—W. J. Doyle, Enniscorthy; E. A. P. White, D.A.T.I.; E. V. Kelly, Oldcastle.

### REPORT OF COUNCIL.

A meeting of Council of the Association was held on the 22nd February, 1918.

A letter from the Victoria Veterinary Benevolent Fund was read, asking for subscriptions. It was resolved that £2 2s. be subscribed this year and that, if the funds permit, a similar subscription be given in future years.

With reference to the grievances of the Veterinary inspectors, it was resolved that some of the Irish M.P.'s be approached with a view to securing their influence in promoting and introducing to the Lords of His Majesty's Treasury the Deputation already appointed by the V.M.A.I., that the following members be appointed to interview the M.P.'s mentioned, and that Mr. O'Connor be interviewed by Mr. Holland; Mr. Devlin by Mr. Cushnahan; Mr. Clancey by Mr. Watson; Sir E. Carson or Capt. Craig by Mr. Johnston; Mr. Redmond by Mr. Howard; Mr. Dillon by Capt. Reavy; and that Mr. McGuinness prepare a statement of the grievances of the veterinary inspectors and send copies of same to each of the said M.P.'s and to each member of the deputation.

A meeting of Council was held on the 22nd March, 1918. Prof. O'Connor was authorised to sign as President of the V.M.A.I., the petition for a Civil List Pension for Mrs. Mettam, sent by the Department of Agriculture per Mr. Howard.

A letter was read from the Master Farriers' Association with reference to increase in the cost of shoeing, etc. It was directed that this letter be acknowledged, and that no action be taken. It was arranged to hold the General Meeting in May, 1918, on a day to be arranged with Mr. Watson, who would read his paper on "Diseases of the cow's udder," prepared for the meeting in last November. Reporter to be engaged as usual.

Mr. WATSON: Since that date I have not received any communication. I was wondering when I would get this information in order that I might approach Mr. Clancey, M.P.

Capt. REAVY: The same thing applies to me. I was speaking to Mr. Dillon and I had not the information to give him.

The CHAIRMAN: I think we have got no information since.

The CHAIRMAN said he would write to Mr. McGuinness and ask him to prepare a statement, and this course it was decided should be adopted.

### DISEASES OF THE COW'S UDDER.

The CHAIRMAN: Our next item is Mr. Watson's paper. At this particular time seeing that so much attention is given to matters of public health, I think Mr. Watson is very happy in the selection of a subject. He has gone into the question of all the principal diseases to be met with in the cow's udder that may be communicated to the human being through the milk supply. I am sure you have all read the paper, and that it can be now taken as read and open for discussion.



Prof. CRAIG : The subject of the paper which Mr. Watson has presented for discussion at this meeting is of very great importance to veterinarians, and especially to those who are interested in Public Health matters. Milk forms an essential portion of the diet of children. It is usually taken in the raw state because many people have a natural prejudice against the use of boiled or pasteurised milk. It is therefore necessary to ensure the wholesome character of this food at its source, and safeguard the public against possible infection from the cow.

If the udder is affected with a disease communicable to man, the milk forms an excellent medium for its conveyance. It therefore behoves us as veterinarians to be in a position to differentiate those diseases of the udder with certainty and in the early stages of their development. Mr. Watson has had more experience than is granted to most of us in the inspection of dairy cows from the public health point of view, and we look to him for light and leading on this important question.

Among the conditions to which he refers in his paper none have received—and deservedly received, so much attention as tuberculosis of the udder. The prevalence of tuberculosis in the cow points to the probability of infection of the human subject with bovine tubercle bacilli, and the recent investigations in connection with the identity of the type of tubercle bacillus in the lesions of tuberculosis in young people prove that milk is one of the actual carriers of the disease from the cow to the human subject. The transmission of tuberculosis by this means not only occurs, but it occurs frequently.

Mr. Watson gives some indication at the end of the paper as to the frequency of tuberculosis of the udder in dairy cows in Dublin, but the evidence is presented with some reservation. If one may take it that the cases noted as "the masses irregular in contour, where no acute inflammation was present" are cases of tuberculosis of the udder, then one may conclude that about 1% of the dairy cows in Dublin have tuberculous udders. Perhaps Mr. Watson can give us some more definite information as to the number of those cases in which tuberculosis of the udder was positively diagnosed. If the percentage I have put down is correct, then it is in accord with that which obtains in many districts in Great Britain.

The infection of the udder by tubercle bacilli has been explained in a variety of ways. It has been thought that backward infection from abdominal lesions through the lymph vessels is the common route, and that the supra-mammary gland is infected before the udder itself. In many cases the evidence on that point is not quite clear. The lesions in the supramammary gland are slight, while those in the udder are extensive and showing numerous caseating and even calcifying centres.

In the diagnosis of the condition considerable difficulty often arises, especially in the case of udders in the early stages of the disease. The affection is difficult to distinguish from other chronic or subacute forms of mastitis; but it would be foolish to treat all cases of chronic mastitis as if the animals were affected with tuberculosis of the udder.

The examination of the milk from the suspected udder is of great value in this connection, and Mr. Watson has dealt with the procedure to be followed in carrying out the examination. But it seems to me that he has not laid sufficient emphasis on the precautions to be taken in the selection of a sample of milk. It is necessary to provide against outside contamination. The milk, say the latter portion of it, must be withdrawn directly from the teat into a sterile bottle. Only then can one be fairly certain that when one finds an acid-fast bacillus in films from the samples that this bacillus is a tubercle bacillus, and is derived from the udder of the cow. If the milk for examination is taken from the common milking pail one cannot but see that a serious source of

error may arise in diagnosis. I do not know if that happened in the case of the red cow which he mentioned as one of the cases which caused him trouble. Where the microscopic examination is negative one can not conclude that the udder is free from tuberculosis. One can only state that one has been unable to find tubercle bacilli in the sample of milk. Sometimes, however, obvious infection of a different nature is observed on microscopic examination. But where this is not noted, biological experiment is a useful procedure for the purpose of diagnosis. It has, however, the defect that one has to wait several weeks for the result.

In the meantime the application of the tuberculin test is of some service here—in this way. A positive reaction gives no indication of the position of the tubercular lesions in the body, but a want of reaction in an otherwise apparently healthy animal points to the absence of tuberculosis.

As Mr. Watson has noted, it has been shown that tubercle bacilli may find their way into the milk from udders which are apparently healthy. This has been noted in some cows showing clinical symptoms of tuberculosis and the infection of the milk has been proved, but only by biological experiment.

It is also interesting to remember that tubercle bacilli have been excreted for a long time in the milk of cows which in their earlier days were immunized with vaccines prepared from human tubercle bacilli.

Mr. Watson refers to the use of cultures for the purpose of diagnosis. Cultivation of tubercle bacilli from milk in the cases where it might be useful is not practicable, because of the scarcity of the organisms and the very slow growth of the tubercle bacillus in culture.

Regarding actinomycosis of the udder, the essayist remarks that he feels certain it is of rare occurrence. That is of some interest. In Lanarkshire some fifty udders showing lesions suspicious of tuberculosis were examined, and of these five proved to be cases of actinomycosis. Possibly actinomycosis of the udder is more frequent in some districts than in others.

The only other condition to which I would refer is botryomycosis, I would like to ask Mr. Watson if he has ever come across any example of that disease in the cow.

In the prevention of tuberculosis in man the Tuberculosis Orders which were introduced before the war, but which are now in abeyance, would have gone far to safeguard the public health against tubercular infection from a bovine source. No doubt the time will come, and probably at no far distant date, when the veterinary inspector will be called upon again to carry out his onerous duties in connection with the Tuberculosis Orders of 1913 and 1914. It is therefore not inopportune for us to discuss such a paper as Mr. Watson has brought forward, and I think he deserves our very best thanks for preparing and presenting the paper for discussion at this meeting of the Association.

Capt. REAVY : I have not had the pleasure of reading this paper all through, but I have nothing to say but praise of it. I agree with all that Prof. Craig has said. It is very important that veterinary surgeons should know everything with reference to milk supply. The question I would ask is why was the Tuberculosis Order put in abeyance, and by whom? I think at the present time, when we are led to believe that milk is a great source of tuberculosis when transmitted to children especially, and now that the aim and interest of every one is to preserve the manhood of the country, it is a pertinent question to ask why this Order was put in abeyance?

Mr. NORRIS : I agree with the previous speakers that we have no more able exponent of the subject than Mr. Watson, who has had a long experience of udder disease in the abattoir and dairy yard. Anything I have to say will not be in the nature of criticism, but rather to

emphasize some of the more important points made in the paper. As Capt. Reavy has said, the public has a vague idea that young children are sometimes liable to tubercular infection from drinking cows' milk. The latest statistics of competent research workers show that almost 80 % of the cases of fatal tuberculosis investigated in children under 5 years of age are due to bacilli of bovine strain. In adult life the percentage of cases of bovine origin dwindles considerably. As a rule in the cases in children the lesions were found to be abdominal, pointing to the probability of milk being the vehicle of infection. We could ask for no stronger evidence to magnify the importance of udder tuberculosis than the result of these researches.

As to the diagnosis of mammary tuberculosis, I agree with Mr. Watson that the history of the case, the development of the lesion, and the clinical appearances are very important aids; but, of course, one should not stop at the clinical examination. It is necessary to reveal the tubercle bacillus before giving a definite opinion. Microscopic examination in this respect is not altogether reliable, and a negative result should always be considered in conjunction with the history of the case before a final decision is given. Cultures are perhaps the least satisfactory method of diagnosis; not because of the difficulty of obtaining pure seed material, but owing to the slow growing habit of the bovine type. Undoubtedly the most satisfactory method is guinea-pig inoculation.

A point that I would like to emphasise is that primary infection of the udder is rare. We almost always find tuberculosis of the peritoneum in association with the udder lesions. How the disease spreads from the former to the latter is perhaps a debatable point, although *via* the lymphatics is generally accepted.

The only thing I have to complain of in the paper is that although Mr. Watson has dealt with the subject fully he does not give a hint as to what are the proper steps to secure a tubercle-free milk supply to the community—a point which occupied the minds of many engaged in agriculture and public health questions before the war. Toward the end of his paper Mr. Watson states: "The system that exists in my bailiwick is," etc. If the statement is an accurate description of the case as it applies to this city, I think it is most unsatisfactory. It is more or less useless to hand over a sample of milk to a medical man, who, perhaps, knows nothing about the case, to make a microscopic examination of a slide or two, and if the result is negative to allow the matter to drop. I think, and I am sure all here will agree with me, that the examination, both clinical and bacteriological, should be in the hands of the veterinary officer from beginning to end.

Prof. BROWNE: I have very few remarks to make on this subject. Mr. Watson has given us some of his personal experiences on the subject, and I think it is a great pity that he did not give us some more of them, because he is exceptionally fitted to do so, and his experience extends over—I won't say how many years. There is one branch of the subject on which I have some little experience, and that is examination of milk for tubercle bacilli. During all the years when I was an assistant with Prof. Mettam I examined quite a number of specimens of milk. At that time the Tuberculosis Order was in operation, and I can assure you that it was only in a very small number of cases that he was able to find any tubercle bacilli.

Mr. D. NEARY: As far as tuberculosis is concerned, the ordinary country practitioner has very little chance of knowing. Personally, as far as my experience goes, I think the percentage of tuberculous cattle must be very small.

(To be concluded).

# PARLIAMENTARY.

In the House of Commons, Tuesday, Oct. 22nd.

## OUTBREAK OF RABIES.

Mr. PROTHERO, replying to Sir W. Bull (Hammer-smith, U.), who asked whether he was aware that a British officer flew over from France with a lady's dog which, it was alleged, spread rabies in Devon; and, if so, what punishment would be meted out to the officer for evading the law, said:—The Board have no knowledge of the circumstance to which my hon. friend refers, and if he will send me his information, I will have it investigated. In January and February, 1917, the Board called attention to this possible source of risk, and both the Admiralty and the Royal Flying Corps gave every assistance by warning officers of the serious breach of regulations involved. I may, perhaps, take this opportunity of explaining the gravity of the present position. In all, 40 cases of rabies have been confirmed since Sept. 7—35 in Devon and 5 in Cornwall: of these no fewer than 29 occurred in the County Borough of Plymouth. But these figures do not by any means represent all the facts of the case. I am satisfied that rabies has been in existence in these counties for several months, probably since the end of May, and the latest outbreak discovered is in the Wadebridge district of Cornwall, some 30 miles distant from Plymouth. Here the rabid dog was owned by an hotelkeeper, and enquiries have shown that another of her dogs had died of rabies three weeks ago, whilst other very suspicious deaths of dogs are now known to have occurred in the immediate neighbourhood during the month of September. Visitors with dogs had been staying at this hotel, and as many as seven dogs which are known to have been in daily contact with the hotelkeeper's dogs during this summer have been taken to places outside Devon and Cornwall. These have now all been traced and isolated. It will be seen that grave risk of the spread of this disease to other parts of the country has thus been incurred, and I desire to make a strong appeal to all persons who have visited Devon or Cornwall with dogs during the last five months that they should place their dogs with veterinary surgeons at once and inform my Department of the fact. I regret to say that the appeal for this information issued to the Press on the 11th inst. has only met with one response. Human life is at stake in this matter. (Hear, hear). At least 21 persons are known to have been bitten by these rabid dogs, nine being children, and any person who fails to assist by giving the information required will incur a very grave responsibility, should the disease spread to other districts. I would like also to appeal to the manufacturers of wire muzzles to come to my aid by greatly and rapidly increasing their output. The deficiencies of supply hinder the measures necessary for stamping out this disease.

Sir W. BULL: Has not a barrister of standing communicated the name of the officer, the date of the occurrence, and the name of the dog? Mr. Prothero: Not to my knowledge. The information has not been communicated to me, or, at least, in such a way that it reached me. Mr. Lambert (Devon, S. Molton): How did this outbreak in Devon and Cornwall first occur? Mr. Prothero: That is just the difficulty. I can't explain it. I may have a suspicion, but I should not like to say on suspicion what I believe the cause to be. It will be observed the danger is mainly centred in the County Borough of Plymouth. Mr. Chancellor (Haggerston, L.): Has death resulted from any of these bites from rabid dogs? Mr. Prothero: Not at present.

## V.V.B. FUND.—CORRECTION.

In the list of donations at p. 130, of last week's issue, for J. Holland, read, J. HAMMOND £100.

## REVIEW.

**MASTITIS OF THE COW.** By SVEN WALL, Assistant in the Veterinary High School at Stockholm. Authorised translation with Annotations by Dr. Walter J. Crocker, B.S., V.M.D., Professor of Veterinary Pathology, University of Pennsylvania. Pp. xj + 166, with 23 illustrations. Price 12/6 net. (J. B. Lippincott Company, Philadelphia and 16 John Street, Adelphi, W.C., 2, London.)

Prof. Crocker has earned the gratitude of English-speaking veterinarians by placing this edition of Sven Wall's well-known work within their reach. We know no book which treats the subject so completely; and its publication fills a gap in our literature. As the work will be new to nearly all English readers, it is well to summarise its arrangement and contents.

After an initial chapter giving a concise and adequate anatomical survey of the bovine udder, four chapters deal with mastitis in general, its various causes, and the types of infection. These lead up to the following seven chapters, in which the various types of udder-infection, common and rare, are considered in detail. Streptomycosis, staphylococcosis, colibacillosis, pyobacillosis, tuberculosis, actinomycosis, and necrobacillosis of the udder each receive a separate chapter and are fully and carefully described. This includes a consideration of their prognosis and treatment. Then follow two chapters dealing respectively with the clinical and post-mortem diagnosis of mastitis, which will give valuable assistance in the differentiation between the various forms, when that is possible. These nine chapters form the kernel of the work, the remaining four chapters being mainly summarising and illustrative. These latter comprise short but sufficient chapters upon the importance of mastitis in milk control and meat inspection, the first containing some useful statistics; a longer one of post-mortem reports upon some sixteen cases of single and mixed udder-infections; and a concluding one of clinical reports of a few cases of contagious udder-infections checked by bacteriological examinations of milk samples.

As usual in such works, a minute examination detects points more or less open to criticism. The recommendation on page 50, to give camphor as a febrifuge in streptococcal mastitis in doses of five grains daily, must surely be a mistake for grammes; and it is not certain that the author is right in stating positively, as he seems to do on page 87, that the tubercle bacillus does not form spores. On page 49 the heading of "Typical Chronic Streptomycosis" appears to have been inadvertently omitted, with resultant confusion of that condition with the preceding one of Atypical chronic streptomycosis. Some of the therapeutic teaching, also, such as the frequently advised use of the actual cautery, may not be acceptable to many English readers. On the whole, however, the book must be pronounced a very valuable one to country practitioners. Few, perhaps, have sufficiently thought out the pathological processes underlying the various forms of mastitis; and the work gives all details of this nature with quite sufficient fullness for the purposes of the clinician. Some, again, trouble little about differentiating between the non-tubercular forms of mastitis; and as regards this question, which is by no means without practical importance, the book gives valuable information. It is a well-written summary of the clinical and experimental observations of an acknowledged authority on mastitis; and the majority of clinicians, after reading it carefully, will find their ideas of the subject much more accurate and systematic than before. It may fairly be said that every veterinarian who is concerned with bovine disease at all will do well to add it to his library.

The tabular summaries which generally terminate the chapters might be omitted from future editions without disadvantage, as it is difficult to see any real utility in them.

W.R.C.

## The A.V.C. Comforts Fund.

To the Editor of "The Veterinary Record."

Dear Sir,—Will you, on behalf of the Committee, Army Veterinary Corps Comforts Fund, very kindly insert in *The Record* the enclosed lists of subscriptions and gifts which have already, most generously, been given to the Fund for the winter of 1918-19.

The Committee is very grateful and would like to thank all those who have already given such substantial help, they will also gladly receive any woollen or other gifts which should be sent in as soon as possible in order that they may be despatched before the intense cold sets in.

Subscriptions are most welcome at all times.

Yours faithfully,

E. A. BLENKINSOP.

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Back	1	0	0
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8 Kent Terrace, Regents Pk.	3	3	0
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C. S. Ward & Sons, 66 Brompton Road	1	1	0
Miss Morgan, High Street, W.	5	0	
Mrs. Herbert Marshall, The Manor Ho.	5	0	
H. Ward & Sons, Edgware Road	1	1	0
Mrs. Ensor, 32 Sussex Place, N. W.	1	0	0
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per Mr. J. Coppock, 97 Wimpole Street:—

J. Coppock	1	1	0
J. Warrick & Co. Ltd.	2	2	0
Morgan & Co., Ltd.	1	1	0
Garnett	2	2	0
Liversidge & Son	5	5	0
Charles Webster, Ltd.	2	2	0

13 13 0

per Mr. W. B. Carter,

London Street, Paddington 2 14 6

*List of Gifts, A.V.C. Comforts Fund:—*

Mrs. Tay: 2 mufflers, 1 pr. socks, 1 helmet. [6 caps  
 per Mrs. Mosley: 12 mufflers, 6 pr. socks, 1 pr. gloves,  
 Mrs. Day: 6 pr. socks

per Mrs. Garnett: 22 pr. socks, 28 mufflers

Queen Mary's Needlework Guild, per Lady Lawley:

50 towels and washing sq., 49 mufflers, 50 hdkfs.,  
 50 caps, 49 pillow cases, 50 sweaters, 10 blankets,  
 5 pr. sheets

War Hospital Supply Depot, Sidcup, per Mrs. Jackson:  
 119 mufflers, 110 mittens, 80 caps

Mrs. Weir: 2 mufflers, 3 pr. socks, 4 pr. mittens

per Mrs. Cowan: 42 mufflers, 15 pr. mittens

Mrs. Kay Lees: 9 packs cards

## ARMY VETERINARY SERVICE

War Office, Oct. 15.

The King has been pleased to approve of the following  
 awards to the following Officers and Warrant Officers in  
 recognition of their gallantry and devotion to duty in  
 the field:—

## THE MILITARY CROSS.

\* \* \* \*

Temp. Capt. THOMAS WALSH McMAHON, A.V.C.—For  
 conspicuous gallantry and devotion to duty. He ad-  
 vanced with the brigade and established his collecting  
 posts, dressing and evacuating wounded horses under  
 intense machine-gun fire, in addition to shell fire and  
 bombing from enemy aeroplanes. By his fine example  
 and encouragement to his men he was enabled to dress  
 and evacuate some 250 horses which would otherwise  
 have been lost.

Buckingham Palace, Oct. 19.

The King held an Investiture this morning at 10.30  
 o'clock.

The following Officers were severally introduced into  
 the presence of His Majesty, when the King invested  
 them with the Insignia of the respective Divisions of  
 the Orders to which they have been admitted:—

## THE DISTINGUISHED SERVICE ORDER.

\* \* \* \*

Major GREATLY SAUNDERS, Canadian A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Oct. 17.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temp. Hon. Lt.:—M. Foster (Oct. 17).



Oct. 19.  
Lt.-Col. W. D. Smith, c.m.g., d.s.o., relinquishes the temp. rank of Brig.-Gen. on ceasing to hold the appt. of Dir. of Vety. Servs. (Sept. 25).

Lt.-Col. W. D. Smith, c.m.g., d.s.o., to be actg. Col. while holding the appt. of Dep. Dir. of Vety. Servs. (Sept. 28).

Oct. 21.  
To be actg. Lt.-Cols. whilst holding the appt. of Asst. Dir. of Vety. Servs.:—Maj. F. Fail, Maj. J. Nicholas (July 1); Maj. W. A. Jelbart, Temp. Capt. D. O. Turnbull, d.s.o. (Sept. 1).

Cpts. to be actg. Majs. whilst holding the appt. of Dep. Asst. Dir. of Vety. Servs.:—A. A. Pryer, d.s.o. (Aug. 21); J. G. McGregor (T.F.) (Sept. 1).

Temp. Qrmr. and Hon. Lieut. H. J. Arnold resigns his commn. (Oct. 22).

Temp. Qrmr. and Lt. G. F. Galloway to be Capt. under Art. 330, R. Wt. for pay and promotion (Oct. 10).

Oct. 22.  
To be temp. Lieut.:—R. B. Catt (Aug. 16).

Oct. 24.  
Asst. Dir. of Vety. Servs. and Remnts. (Class X).—Temp. Capt. (temp. Maj.) A. G. Doherty, m.c. (Capt. E. Afr. Vety. Dept.) from Dep. Asst. Dir. of Remnts. (Cl. BB) and to be temp. Lt.-Col. whilst so empld. (July 5).

#### OBITUARY.

R. R. ARTHUR, M.R.C.V.S., Auctermuchty, Fifeshire.  
Graduated, Edin: Dec, 1898.

Mr. Arthur died on 18th Oct., 1918, aged 44.

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaught-ered.*
	Dogs	Other Anmls											
	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)		(b)	(b)
Gr. BRITAIN.													
Week ended Oct. 19	13		4	4	1	2			45	66	3	32	8
Corresponding week in {	1917		6	8				4	29	42	2	14	11
	1916		7	7				1	20	29	2	54	20
	1915		1	3			1	1	10	29	1	61	302
Total for 42 weeks, 1918													
	39	1	201	231	3	13	26	71	3694	6941	264	1153	456
Corresponding period in {	1917		359	410			23	46	2018	3833	417	1863	912
	1916		426	500	1	24	43	111	1804	4044	201	3705	8859
	1915		456	520			41	72	†670	†1447	165	3330	14575

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive.  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Oct. 22, 1918

‡ Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND.		Outbreaks								
Week ended Oct. 5		...	...	...	...	...	...	...	8	...
Corresponding Week in	1917	...	...	...	...	...	...	...	10	3
	1916	...	...	...	...	...	...	...	9	3
	1915	...	...	...	...	...	...	...	5	4
Total for 39 weeks, 1918		2	2	...	...	...	...	92	230	22
Corresponding period in	1917	3	5	...	...	1	1	40	302	188
	1916	3	7	...	...	...	...	56	326	259
	1915	1	1	...	...	1	3	59	319	197

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Oct. 7, 1918

IRELAND.		Outbreaks								
Week ended Oct. 12		...	...	...	...	...	...	...	16	...
Corresponding Week in	1917	...	...	...	...	...	...	...	9	1
	1916	...	...	...	...	...	...	...	6	5
	1915	...	...	...	...	...	...	...	3	5
Total for 35 weeks, 1918		2	2	...	...	...	...	92	246	22
Corresponding period in	1917	3	5	...	...	1	1	40	311	189
	1916	3	7	...	...	...	...	56	332	264
	1915	1	1	...	...	1	3	62	326	202

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Oct. 14, 1918  
NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1582

NOVEMBER 2, 1918.

VOL. XXXI.

## "CASTING SHADOWS BEFORE."

The present condition of affairs on the Continent renders several prospective measures of more urgent importance, and foreshadows new work for the Council. The recommendations for financial assistance to veterinary students is one such question which was dealt with at the last Council meeting, and suggestions for a scheme for the purpose were decided upon there and then. The Government Departments entrusted with these various measures desire to have their schemes drawn up and in order; and the Council did well to act quickly.

Another subject upon which communications have already passed between the Council and the Government, is the re-settlement of veterinary surgeons in civil life after the war. If the Government takes any steps at all it will need veterinary advice; and evidently that necessity is recognised. Much in the history of the last four years, including the recent creation of the Veterinary Tribunal, shows that Government Departments now recognise our Council as representing the profession; and we may be sure that the Council will receive a hearing when any other veterinary body would be disregarded.

## THE COLLEGE FINANCES.

Last week—the last Saturday in October—the published total of voluntary subscriptions was £1074 4s. 11d. These figures show substantial improvement upon 1917, when the total for the whole year was only £960. Considering that September is a holiday month, the increment of rather over £100 in the two months may be considered fair progress. Two more months of 1918 still remain to us, and we may reasonably hope to see the pace accelerated, and considerable addition made to what is already a respectable total.

We should remember the Treasurer's words at last Council meeting—"Our expenses may be counted at somewhere about £1500 a year," and he proceeded to urge those members who had not yet subscribed to do so. This shows that though we are doing better this year than ever before, we have not yet done enough.

## UDDER TROUBLE IN COWS.

In the reports of two Societies which appear in our pages this week there is much said on Tuberculosis of the udder, and on Septic mammitis. In the former, difficulty in diagnosis is a marked feature. In the latter unsatisfactory methods of treatment are emphasized. The author of the paper gives a prophylactic treatment which has proved successful in his hands; but as the disease is largely seasonal, little use is likely to be made of it at pre-

sent. In both conditions there is danger in the milk, and a loss to cattle owners which in the aggregate must be very considerable.

In the course of a discussion it was stated that the Tuberculosis Order 1914 was "hung up" for want of money. But was it not for lack of men—at any rate on this side St. George's Channel?

## BACTERIAL ASSOCIATIONS IN EPIZOOTIC LYMPHANGITIS.

M. Carpano published the result of some researches upon this subject in the *Annali d'Igiene* of this year. He subjected numerous samples of the purulent exudate of epizootic lymphangitis to systematic bacteriological examination, and found that Rivolta's cryptococcus is very often accompanied by streptococci and staphylococci, even when the material examined has been obtained from deep and previously unopened lesions.

Carpano ascertained the presence of these germs by using a special culture medium, with which he tested 41 samples. In these 41 samples he found streptococci 25 times (= 59 p.c.) and staphylococci 17 times (= 41 p.c.). In 14 samples Rivolta's cryptococcus was found alone; in 15 it was associated with both streptococci and staphylococci; in 10 it was associated with only streptococci; and in 2 with only staphylococci.

After a detailed morphological, cultural, and biological study of these associated germs, Carpano places them as streptococci of the *adenitis equi* type and as *Staphylococcus pyogenes* in its different varieties; both remarkable for their prominent pathogenic properties.

Carpano then asks, What is the influence of these microbes upon the origin, the clinical picture, the course, and the result of epizootic lymphangitis? Undoubtedly, he thinks, the concomitant action of these germs cannot be negligible, in view of the high sensibility of horses to pyogenic microbes. If such agents with their various toxic products are capable when alone of causing important general and local disturbances, it is not an exaggeration to admit that the gravity of epizootic lymphangitis may be very largely attributable to association with these microbes. This is similar to what occurs when pyogenic organisms are present in such diseases as pneumonia, glanders, tuberculosis, actinomycosis, etc.

In conclusion, Carpano justly calls attention to the necessity of taking these bacterial associations into consideration in experiments upon the immunisation against and therapy of epizootic lymphangitis. - (*La Clinica Veterinaria*).

# VETERINARY MEDICAL ASSOCIATION OF IRELAND.

(Concluded from p. 140).

Mr. CUSHNAHAN: Mr. Watson has been very happy in his selection of a paper, and I am sure no one is in a better position to speak on this subject than he is. I have been with him on some of this work and the cases I saw were both interesting and important. Regarding the diagnosis of tuberculosis of the udder, we are told that the part does not show any inflammation: that one quarter only, generally the posterior, is affected, and that it has a cold feel. I have seen cases where the condition presents the appearance of a subacute mastitis. On one occasion I had an opportunity of seeing in the abattoir, with Mr. Watson, a cow which looked apparently healthy. Her udder did not suggest that she was affected with tuberculosis; one quarter was slightly enlarged, with a considerable amount of heat—what might be termed a subacute inflammation. In this particular case credit is due to Mr. Dolan, Mr. Watson's assistant. A specimen of milk was sent to a well-known bacteriologist, a medical man in this city, for examination. He failed to find tubercle bacilli. Mr. Dolan, however, was not satisfied, and he also examined the milk microscopically and found acid-fast bacilli. The cow was slaughtered. I was present at the post-mortem examination, the viscera appeared normal, tubercular lesions were absent on pleura and peritoneum, but when the lungs were cut into they were found to be practically a mucous mass. One quarter of the udder was decidedly tuberculous, the supra-mammary gland was enlarged, but we could not find any definite tubercular lesions in it. The post-mortem confirmed the diagnosis, viz., that the case was one of tuberculosis of the udder. In this connection mention has been made of the milk ducts—the ducts of the teat—as channels of infection. I think it is more likely that infection takes place through the blood stream, and this particular case mentioned would, I think, go to prove that.

Mr. Watson mentioned cases of chronic induration of udder, and also purulent affections, and the difficulty in arriving at a diagnosis. In these cases the milk should be examined microscopically, and if with negative results, the animal should be submitted to the tuberculin test. If she reacts she should at once be put aside as tuberculous. If, however, she fails to react and is yielding purulent milk, she should be considered as a menace to the public health and put aside also. I have seen milk teeming with streptococci and I have no doubt that milk of this description causes many illnesses in children, at least. In medical circles I think it is an accepted fact that a large percentage of cases of tubercle in children are of bovine origin. In Edinburgh it has been shown that of the cases of tuberculosis in children the percentage due to bovine origin is very high. In New York the deaths amongst children are from six to ten per cent., while bone cases are as high as 70 per cent., according to Smith. It has been pointed out by Griffith that in children under ten years nearly 75 per cent. of the cervical gland cases are of bovine origin. I should say a large percentage of mesenteric and intestinal lesions of tuberculosis in children must be due to the bovine type of bacillus. From what we know of the transmission of bovine tuberculosis to human beings it seems strange that so much money is spent in trying to eradicate the disease in man without simultaneous action being taken in regard to cattle. Notwithstanding the war, I do not think the Tuberculosis Order should have been suspended.

Prof. CRAIG mentions a very important matter in the examination of milk, namely, to have vessels and bottles in which samples are taken sterilised beforehand. It is

also important to have the milk from the suspected cow taken separately, and from the affected quarter, if any one quarter of the udder is affected.

On the subject of actinomycosis, I remember some years ago reading a report of the Medical Officer of Health for Lanark, and it was surprising the number of cases of actino. of the udder he found. I presume his cases were confined to biological examination? It seems strange that fewer cases of actino. of the udder should be found elsewhere than in Lanark. I think that generally most veterinarians are satisfied with the clinical examination. In my opinion they should, as often as the opportunity presents itself, have recourse to the biological test.

Mr. Watson has mentioned in his paper malignant tumours of the udder. Seeing that the origin of these is still obscure, an animal whose udder is affected with such should not be used for milking purposes.

Foot-and-mouth disease is one of the diseases mentioned as being communicable to human beings. The risk of its transmission is regarded lightly by some. I should mention a case where a doctor in a certain district where foot-and-mouth disease existed, mentioned to me a case of a child affected with an aphthous condition which he had difficulty in diagnosing. Foot-and-mouth disease existed on the farm where the child was reared, and it was drinking cows' milk. He told me that he could arrive at no other conclusion than that the case was one of foot-and-mouth infection. He was a very tactful and diplomatic practitioner: he kept his opinion to himself lest a scare might be made in the district.

Of the diseases communicable to man through milk—that is, from a diseased udder—I do not mean those diseases where milk is only a medium for conveying micro-organisms, there is the greatest risk from tuberculosis, and as too much care cannot be used in diagnosing this or any other diseased condition of the udder, I quite agree with Mr. Norris—that the medical officer should not usurp the work and duties of the veterinarian. The veterinary surgeon is qualified, or I should say the only person qualified, to do both the clinical and bacteriological part of the work, and I don't see why a medical man should step in and say whether any particular case is tuberculosis or is not. Many mistakes are made in this way, and in the interest of the public health it is time something should be done to prevent them.

Mr. Norris appeared to be disappointed that mention was not made in the paper regarding the subject of tubercle-free herds. Now, I think that this is a matter worthy of a paper in itself. Perhaps at a future meeting of this Association some member will be good enough to bring the subject forward for discussion.

I have much pleasure in congratulating Mr. Watson on his able paper.

Mr. DUNLOP: I have read Mr. Watson's paper with pleasure and profit. Mr. Watson has dealt with the subject of diseases of the cow's udder in a thorough and practical manner. I do not think we can find fault with the paper except that it was too short. It is to be hoped that he will remedy the defect in the near future.

Mr. Watson says, "milk is the beverage of the poor and the rich." Bang, and other distinguished authorities hold that it is quite possible to have tubercle bacilli in the milk without any tubercular lesions being present in the mammary gland. Other leading bacteriologists, as Principal Mettam, B.Sc., aver that you cannot have tubercle bacilli in the milk without a tubercular lesion in the gland. The latter say, it is not because the lesion cannot be found that it must necessarily be absent." There is practically no difference of opinion here. It therefore follows that if we

are to have a pure milk supply we must have all reactors removed from the dairy. What then is to be done with reactors? Are they to be destroyed? That would make meat scarce and dear. The country could not afford the money for compensation. The health of the community, especially of the poor, would suffer.

It has been proposed in Scotland recently that the carcasses of all reactors, or at any rate diseased animals, should be cooked under steam pressure in such a way as to thoroughly sterilise the meat to the centre. Some people do not relish this idea. A better course to adopt, I think, would be to brand all reactors on the hoof and, after killing, give the carcasses an *extra-special* careful inspection. With a view to economy, reactors should be prepared for the butcher. At present, reactors and disease-proof cattle are killed promiscuously, and many animals are not inspected at all. Visibly affected animals should be handed over to the knacker, and in the interests of public health the owner should be compensated for any carcass or part of a carcass condemned.

The inmates of Peamount Sanatorium are supplied with milk free from tubercle bacilli. The Department of Agriculture send into Dublin a quantity of pure milk, but for a city like Dublin, this is only a drop in the bucket. The question naturally arises, What becomes of the reactors removed from the dairy? Have they been sold in the market to find their way into other dairies, to further deteriorate and to further contaminate other already infected herds.

A number of years ago Lady Aberdeen received from America a complete plant for pasteurising milk, which she kindly handed over to the Dublin Corporation. Prof. McWeeny, addressing a meeting in the Mansion House during the Baby Week, said that pasteurisation did not destroy the tubercle bacilli; and he is supported in that opinion by other eminent authorities. He said the milk should be boiled, I think he said for a few seconds, and then allowed to cool slowly.

The Liverpool Corporation supply sterilized milk, but in some cases it has induced in infants a form of scurvy, easily recognised by Liverpool specialists. Some medical men recommend bringing the milk to the boiling point and letting it cool gradually, and they use simple means to prevent scurvy in the infants.

The Glasgow Corporation recommend natural milk, and take measures to have the milk supply as clean and pure as possible.

The Melbourne Corporation have abandoned sterilising milk, and with good results have gone in for a pure supply.

Sir John McFadyean said tuberculosis is a purely infectious disease. Few will gainsay that statement. Every infectious disease is purely infectious. If there were no specific infection we would not have the specific disease. He argues that because no baby or calf is (with rare exceptions) born with tuberculosis, the disease is not hereditary. How could the born or the unborn contract an infectious disease if the specific bacillus did not come into contact with the body? It so happens that the foetal membranes are a most efficient barrier or filter to the passing of the tubercle bacillus. There is something in the tissues and lymph of the foetal membranes which is antagonistic to the specific microbe, and to some other microbes as well. This something exists in a varying degree in all our bodies, or we would be all dead men. It is this, a something which is not only hereditary but congenital as well. It is no argument to say that because this which we all inherit more or less can be increased or diminished according to our mode of living that the predisposition to disease is not hereditary. We all admit the importance of disinfection and sanitation. In all infectious diseases a great deal depends on the dose and the frequency of the dose.

The simple and sure method of banishing from our shores the disease in cattle is to breed from healthy cattle only (preferably not too young) that have been known to resist the disease. If we cannot do this properly then the Department ought to do it for us. No bull should be kept for stock purposes that has not been carefully tested. Like tends to beget like. It is a shame for us to allow the foreigner to select and carry off the healthiest of our cattle for stock purposes.

The Royal Dublin Society, the pioneer society in the promotion of Agriculture, Science and Art, has taken a step in the right direction. Before the outbreak of the war it passed a bye-law that dairy cows must pass the tuberculin test before being exhibited.

The CHAIRMAN said he wished to congratulate Mr. Watson on bringing forward a paper of great practical importance from the point of view of the veterinarian and that of public health.

The important points dealt with in the paper have been fully discussed by the various speakers, most of whom, like the essayist, have had extensive experience in the examination of cows' udders in dead or living subjects.

Mr. Watson's reputation and great opportunities for studying the several affections of the udder of the cow led us to expect, perhaps, more information from his treatise than it would be possible to give. He has given a lucid exposition of our present knowledge on the affections of the mammary gland which may render the milk secreted by it dangerous for ingestion by the human being. Tuberculosis overshadows in gravity all the other lesions of the organ. Judging from the records of cases of human consumption resulting from drinking milk from tuberculous udders, the danger of the latter to the public health is appalling, and taking into account the admitted difficulty in many cases of diagnosing tuberculosis of the mammary gland it would seem as if the only reliable method of safeguarding the human subject from this source of the scourge would be to insist on all dairy cows passing the tuberculin test, especially when one remembers how easy it is for the milk to become contaminated from open lesions in other parts of the body. The next best procedure would be to assume that all chronic enlargements of the mammary gland are of tubercular origin, and not depend upon mere microscopic examination of the milk to confirm the diagnosis; and to condemn all subjects clinically affected in other parts of the system.

Mr. Dunlop introduced a good point in advocating the eventual establishment of tubercle-free herds by breeding only from stock which are not the progeny of animals affected with the disease, on the ground that there is a hereditary predisposition to the latter. There is no doubt that some subjects are more susceptible to tuberculosis than others, and I think it is reasonable to believe that this susceptibility is hereditary, as seems proved in the case of the human subject. I was surprised to learn from Mr. Watson's paper that he, as Borough Veterinary Officer, has not entire control of the diagnosis of tuberculosis of the udder in the dairy cows of the city, and I agree with Mr. Norris that the arrangement whereby a medical man has the final say in a case of doubtful diagnosis is obviously most unsatisfactory.

It does seem blind policy on the part of the Government, as Capt. Reavy points out, that in a critical time like the present, when the conservation of the manhood of the country is of such vital importance, the Tuberculosis Order should be suspended. The cost of administering the Order would be insignificant compared with the saving of valuable human lives entailed by its being enforced. I have great pleasure in congratulating Mr. Watson on his very able paper.

## REPLY.

Mr. WATSON: I have to thank you sincerely for the mild, kind, and generous way in which you treated this paper. The question of the milk from a public health aspect has received very great attention from the gentlemen of the fourth estate lately on account of Professor Henston's attack on the Dublin milk supply. I think it was Dr. Oliver St. Gogarty who said that the milk of Dublin was so absolutely swarming with germs that it would be preferable to take a drink of the Liffey in its worst condition. However, we don't mind being ragged in Dublin, particularly the officials. Prof. Craig and a number of other speakers wished to get some more definite methods of diagnosing tuberculosis of the udder. I remember being at a meeting of the Association of Veterinary Officers of Health, held some years ago in London, and there was among those present a very distinguished Manchester Veterinary Inspector, Mr. Brittlebank, who asked, like a prophet in the wilderness, "Was there anyone who could give him a tip as to how to definitely diagnose tuberculosis?" I thoroughly agree with Prof. Craig when he draws your special attention to the greater importance of milk, from a public health point of view, in conveying disease from animal to man, for after all, as the Professor says, we use our milk raw. Prof. Craig took me to book for the figures given at the end of the paper, and he wanted something more definite. I may say I am not in a position to give him anything more definite. During all the years for which I give these figures there was a difficulty in getting the Committee to sanction the slaughter of animals; they are always thinking about their own pockets, and they are very particular about the rules of the City, and particularly where they think they are doing a good turn to a dairyman. Unless you have the power of absolutely slaughtering the animal on your certificate you cannot follow it up and make post-mortem examination. Prof. Craig spoke about examining the supramammary lymphatic glands. I have tried it hundreds of times, and it is almost impossible even when it is enlarged.

Prof. CRAIG: I meant after death.

Mr. WATSON: I have tried it in life. There was a question of the mammary glands becoming infected with tuberculosis. Prof. Craig preached the doctrine that it came from the peritoneum; but I tell him I cannot support that, because in the post-mortem examination, and that is more important, I have seen tuberculosis of the udder. I have arrived at only one form of infection of the udder by tuberculosis, and that is by the blood-stream. As to the public health aspect of using the blood of the tuberculous animal for edible purposes, someone interested in that question recently, before the Public Health Committee, made an order that the blood of tuberculous animals was not to be used. We sold some of the blood of the animals slaughtered in the abattoir for making black-puddings, but the Committee held that there might be a source of infection, forgetting altogether that even black-puddings are cooked. It is quite easy to destroy all the blood by selling it for manure. I cannot subscribe to the doctrine that because an animal is tuberculous, that tuberculosis is in the blood-stream. The only cases in which you find the bacilli in the blood-stream is in miliary tuberculosis. Talking about the difficulties of diagnosing tuberculosis of the udder, I remember a case where I absolutely felt inclined to put my last shilling that I was up against a case of tuberculosis, and after the most searching examination it turned out to be staphylococcus. There is no method of dealing with tuberculosis of the udder, and I don't think any man has ever described the physical symptoms. It must be by biological and microscopical tests.

Capt. Reavy wants to know why the Tuberculosis Order was hung up. It was hung up for the good old

excuse—want of money. Prof. Norris gave some important statistics about the number of children who had tuberculosis of the tonsils and of the mesenteric lymphatics. I remember reading the statement of a German professor, who said that in every instance where he made a post-mortem on children he found tubercle bacilli in all the mesenteric lymphatics, and he arrived at the conclusion that you could not find any children who had not. As regards the primary infection, really I have expressed my opinion on that. I can never believe that the infection can be through the teat.

[Prof. NORRIS: As far as I can see now there is no acceptable solution for that infection where you have infection of the udder and no infection in the abdominal cavity except the teat.]

In reference to Mr. Norris' remarks as to the Medical Officer of Health, I am sorry my words conveyed an erroneous impression, as they were meant to refer to the time antecedent to the passing of the Tuberculosis Prevention (Ireland) Act of 1908. Since then my certificate has always been accepted by the Public Health Committee. I am confident you will all agree that the veterinary profession has no more stalwart champion than the General Medical Officer of Health of Dublin—Sir Charles Cameron.

In conclusion, I may say that I am extremely thankful for the generous way in which you received my efforts. (Applause).

On the proposition of Capt. Reavy, seconded by Prof. Craig, a vote of thanks was passed to Mr. Watson for his paper, and the proceedings concluded.

## NORTH OF SCOTLAND VETERINARY SOCIETY.

[NATIONAL V.M.A.—SCOTTISH BRANCH.]

The half-yearly meeting was held in the Agricultural Department, Marischal College, Aberdeen, on Aug. 29, Mr. William Brown, President, in the chair.

There were present: Messrs. Anderson, Keith; Beattie, Longside; Cumming, Peterculter; Clerk, Stonehaven; Drennan, and Hepburn, Aberdeen; Howie, Alford; Johnston, Auchterless; Kerr, Ellon; Murray, Cullen; McPherson, Huntly; McFarlane, Aberchirder. Apologies for inability to be present were received from Messrs. Niven, Sievwright and Crabb.

The minutes of the last meeting, as they appeared in *The Veterinary Record*, were taken as read.

## PECULIAR CASE OF EMACIATION IN A HORSE.

By R. E. DRENNAN, M.R.C.V.S., Aberdeen.

*Subject.* A Bay Clydesdale gelding, ten years old, belonging to one of the principal coal merchants in the city, where he had been working regularly for five years. The hygienic and feeding arrangements in the stable were perfect. I was called in to see the animal in the beginning of March, this year.

*History.* The animal, though feeding quite well and working regularly, seemed to be falling away gradually in condition. For a week or two the stableman, who is a very careful man, was under the impression that his teeth perhaps wanted attention, so I had them examined and carefully dressed. I also made a careful examination of the animal, but could find nothing of any importance about him; pulse and temperature quite normal, taking his food quite well, and to all external appearances, apart from his poor condition, the horse seemed quite well. I suggested that I might try him with a few tonic powders in his food, and left instructions with the stableman to see that he was not overworked, and to feed him carefully and well. The powders consisted chiefly of calcium phosphate and sulphate

of iron. On my second visit, a week later, I found him in practically the same condition. I continued the powders for a week or two with some vermifuge medicine added, suspecting that there might be worms about the stomach or bowels. On my third visit, about a fortnight from my first, he seemed to be gradually getting poorer instead of improving, and was becoming indifferent to food. The pulse, if anything, was faster and weaker, and temperature was 103° F. I informed the manager about the condition and advised that the animal be placed in a comfortable loose-box and be taken off work, as I suspected something seriously wrong with him. When his temperature began to rise I examined the chest thoroughly, but could find no abnormal sounds, the breathing being quite normal.

A day or two later he began to show signs of some little difficulty in breathing. The lower parts of the lungs were a bit dull; membranes very bilious looking and somewhat congested, pulse 70, and temperature 105°. I applied a stimulating liniment to chest, and had him well clothed with rugs. A day or two afterwards the temperature came down to 103, but by this time signs of colicky pains were shown after eating the slightest quantity of food. After a fortnight or so in the loose-box the manager asked my opinion of the case. I informed him that the animal was suffering from a very bad form of liver trouble—probably an enlarged liver—from the dullness on palpation in that region; or an abscess, either attached to or in the region of the liver, interfering with the digestive organs, and probably through pressure on the stomach causing the slight colicky pains after feeding. I gave very little hope of his recovery.

The animal got gradually more emaciated; temperature rising and falling every alternate day; pulse very fast and weak; mucous membranes very bilious and congested; until the end of two months from the time the stableman first took notice of him he was so thin and weak that he was scarcely able to stand, and when he got down there was difficulty in getting him up again. I gave up all hopes of his recovery and advised that he should be destroyed. The manager, I suppose considering the cost of replacing him, was not in favour of destroying him, and asked if I had any objection to trying him in slings for a week or so. Naturally, I had no objection, and by this time it was possible to get a few blades of grass to eat, which apparently did a little good, and if anything a slight improvement in his appetite took place for a week or so. This improvement was only temporary; he got gradually weaker, and was found dead in the slings one morning about the middle of May.

*Post-mortem.* I found multiple abscesses of a very large size all over the thoracic and abdominal cavities, particularly in the mediastinal glands. The kidneys were practically embedded in pus; the liver and mesenteric glands were full of abscesses; in fact I am quite safe in saying, and Mr. Brown, who was present at the p.-m., can corroborate my statement, the abdominal cavity was practically one mass of abscesses. What I cannot understand is how the animal lived for such a length of time with the internal organs in such a state.

I made enquiries afterwards as to whether the animal had ever suffered from strangles, as the abscesses resembled those found in bad cases of that disease. There was no history of the animal even having had a bad cold.

I will be very pleased if any of the members present can give me any enlightenment as to the probable cause of this condition. To me, as one of the younger members of the profession, it seemed rather an unusual case.

#### SEPTIC OR CONTAGIOUS MAMMITIS IN COW.

By R. E. DRENNAN.

This disease seems to be very prevalent at this season of the year, more especially in back calving cows, and in heifers running at grass even though not in calf.

The disease seems to start very suddenly in most of my cases, in fact animals have been quite well in the morning and by afternoon the symptoms had appeared, when one or two, perhaps all of the quarters of the udder were involved. I have had a good number of these cases under my observation during the last five or six years, more especially in the month of August.

The symptoms I am sure are very well known to all of you, but what I would like to know is if there is any special treatment, as my results in the badly affected cases have been very unsatisfactory; septicæmia has set in and the patients have had to be slaughtered.

The disease when the animals are at grass I am confident is due to a bite from a fly with a septic proboscis, inoculating the teat with a streptococcus. My reason for saying so is that I have tried preventive measures in several herds with excellent results. The method I adopt is to spray the udder of the animals twice a week, beginning about the middle of July, with a mixture of spirits of tar, sulphur and rape oil. In herds where the disease was formerly rife there has not been a single case since adopting this prophylactic treatment. Animals sprayed with this dressing seem to dislike the odour of the dressing. If infection has taken place, the treatment I adopt in severe cases, is to place the animal in a comfortable stall or loose-box and clothe well; give a saline drench to commence with and follow with stimulants. I apply fomentations to the parts of the gland involved three times daily, massage and draw the teat carefully as often as possible. I have tried injections of a warm 3% solution of boric acid, also a 5% solution of hydrogen peroxide, drawing out the fluid three hours after. This I repeat every three or four hours. My results with this treatment varied very much.

Hot fomentations, and rubbing the gland with extract of belladonna in vaseline, drawing out the discharge as often as possible, and after the subsidence of inflammation the inunction of iodine ointment is the treatment which has given me the best results.

Great care should be taken with the discharge drawn from the teats as it is a very dangerous source of infection to other cows which may be tied up in the same stall. I recommend covering the discharge with chloride of lime after each milking, and washing out the stall daily with a strong carbolic solution.

#### DISCUSSION.

Mr. McPHERSON said: We are all extremely indebted to Mr. Drennan for introducing these exceedingly interesting subjects for discussion. The udder cases interest me the most, as at this season of the year they are extremely prevalent and very difficult to treat, in fact, in my experience no treatment is of much use. I will be very glad to hear if any of the other members know of a successful method of treating these cases.

Mr. MURRAY: Like most of you I have had my share of these bad udder cases. I have tried amputation of the teat so as to allow free drainage, and give pot. chlor. as an internal antiseptic.

With reference to the horse case, I think probably a previous attack of strangles may have been the cause.

Mr. CLERK: I thank Mr. Drennan for his interesting papers, and would ask if the horse case was not one of tuberculosis.

In the udder cases, I have tried with varying results in the early stages carbolic soap liniment, and injection of warm Chinosol solutions.

Mr. BEATTIE: In these udder cases I find there is usually high fever. I give in some cases febrifuges and emollient applications to the udder. The infection, I think, is due to filth in the fields and byres. Cleanliness is the best preventive. I have not tried them, but I don't see why antiseptic injections should not help.

In the horse case, the disease was probably pyæmia, as a result of internal injury, or an injury to a foot. I don't think it was tuberculosis.

Mr. CUMMING: I am much obliged to Mr. Drennan for his communications. In case I. I note that the horse was ill weeks before he showed a rise of temperature: therefore I would be inclined to think that the horse received some injury during his illness causing septic infection. The case, if it could have been diagnosed, would have been a suitable one for serum treatment.

I have had my share of contagious or septic mammitis. I certainly believe that the infective agent is the fly or other insect. I have tried various treatments with different results. In the case of heifers I think the best procedure is immediate slaughter. I had recently a case in a heifer with five teats and, strange to say, the fifth or supplementary teat was the seat of the disease. I have never tried serums or vaccines. As a preventive there is nothing to beat dressing the udder with tarry liniments.

Mr. KERR: I am very much interested in the horse case as I had two cases recently, both of which died. On post-mortem the appearances were similar to Mr. Drennan's case. One of them was undoubtedly tubercular, while the other was septicaemia, with vegetations on the valves of the heart.

Mr. HEPBURN: In case I., I am inclined to think that the infection took place after the horse became ill. I had a fat horse which took ill with frequent attacks of colic. He died, and on post-mortem I found the lungs and mediastinal glands full of abscesses. He had been three years in the stud, and had shown during that time no trace of lung trouble, therefore I would suggest that he had got infected three years previously.

Regarding the udder cases, I have tried various treatment with indifferent results, I have tried injections with weak iodine solutions, but with no better results than by other methods. The best treatment in my opinion is to slaughter the animal. I believe the infection is streptococcal in origin and is carried from one cow to another by flies. It is sometimes suddenly fatal. I recommend as a preventive, Ung. petrol, Barbadoes tar, and Oil of citronella.

Mr. HOWIE: I had a case in a colt which, towards the end of the summer, got so emaciated that in the end he was unable to stand. I could form no opinion as to the cause of the trouble. Ultimately he died, and on post-mortem I found multiple abscesses in the abdomen, on the walls of the bowels, and in the mesenteric glands. In the pus I found numerous specimens of *sclerostomum tetracanthus*. On washing out the ingesta in the bowels I found millions of these worms, varying in length from  $\frac{1}{2}$  in. to 1 in., in the bottom of the bucket. I would ask Mr. Drennan if these worms were present in his case, as the p.m. appearances were somewhat similar, except that in my case the abscesses were confined to the abdominal cavity.

My experience of udder cases is that no treatment is of much use. A client who made a business of feeding farrow cows, in every case of septic mammitis, or, as he called it, "udder clap," at once amputated the teat of the infected quarter. This allowed free drainage, and saved a lot of trouble in the way of drawing the teat. I am bound to say his cases got on quite as well as mine. The best practice with farrow cows is to slaughter at once; for I don't know of any disease which picks the condition off a fat cow so rapidly.

Mr. BROWN, President: I was present at the post-mortem along with Mr. Drennan and found that the pus formation was generalised. It was undoubtedly pyæmia, but I am not prepared to attribute the cause. The pus was cold and not evil-smelling. I am inclined to think that the infection was of a long-standing nature. It might have been due to strangles, but the symptoms were not acute enough for that. It was probably due to infection through the bowel.

Treatment in the udder cases is very unsatisfactory. Injections don't do much good, they cannot get deep enough into the gland structure. Mammitis generally is worthy of investigation, as all varieties are not due to the same germ, hence the difficulty of treatment with stock serums. Autogenous vaccine might have good results. Regarding the removal of the teat, I know a farmer who lost two or three cows; after which he amputates the teats, with very good results. I think removal of the teats should be tried oftener than it is. I am of opinion that the disease is carried by fly infection and hot, moist weather. Dressing with tar, sulphur, and oil is very successful in keeping off the warble fly, therefore, I think it should be very useful as a preventive in these cases.

I have very great pleasure in asking you to accord to Mr. Drennan a hearty vote of thanks for bringing forward these two interesting subjects for discussion.

Mr. DRENNAN briefly replied, and thanked the members for their appreciation of his efforts to create a discussion.

#### ELECTION OF OFFICE BEARERS.

*President.* Mr. D. Clerk, Stonehaven.

*Senior Vice-President.* Mr. A. Kerr, Ellon.

*Junior* Mr. A. Niven, Inverurie.

*Hon. Sec. and Treas.* Mr. G. Howie, Alford.

*Council.* Messrs. Anderson, Crabb, McPherson, Sievwright, Murray, Robson, Drennan.

Messrs. Clerk and Johnston undertook to provide material for discussion at next meeting.

A hearty vote of thanks having been awarded to the President, the members adjourned to the Athenæum Restaurant for lunch and a friendly chat.

GEORGE HOWIE, Hon. Sec.

#### The A.V.C. Comforts Fund.

Dear Sir,—I am requested by the Committee A.V.C. Comforts Fund to ask you to express its most grateful thanks to Mr. King and to Mr. Willett for the great help they have both given in support of this Fund. Their time is fully occupied, but they have managed to collect about £400, which is nearly half the amount paid into the Fund's account since last July.

Mr. Willett's contributions were given in your last week's issue of *The Record*. May I ask you to be good enough to insert Mr. King's collections in your next publication?

Parcels have already been sent to Mesopotamia, Egypt, and Salonika, and it is hoped that bales for France and Italy will be very shortly despatched.

Owing to the very large number of men belonging to the Corps at present on the various fronts (over 17,000) it is, of course, impossible to send each man an individual Christmas parcel, but all subscribers may rest assured that the funds at the disposal of the Committee will be used to the best advantage.—Yours faithfully,

E. A. BLENKINSOP.

29 Bramham Gardens, S.W. 5.  
29th Oct.

All subscriptions will be gratefully received by  
Mrs. MARTIN, Hon. Treasurer,  
19 Stanhope Gardens, S.W. 7.



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## ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Oct. 26.

## REGULAR FORCES. ARMY VETERINARY CORPS.

The following Capts. are sec'd. for duty with Egyptian Army :—J. Going (July 16); G. V. Golding (July 21); C. P. Fisher (Aug. 8); W. H. Heaney (Aug. 10); J. R. Ellison (Aug. 11); G. E. Oxspring (Sept. 2).

## OBITUARY.

MALVISI.—At Hornsey, on 24th October, after four days illness, Emily Bertha Malvisi, the beloved wife of C. A. Malvisi, M.R.C.V.S. Aged 47.

Major JAMES EADIE DAVIDSON, D.S.O., Royal Garrison Artillery (died of wounds), was the elder son of Mr. and Mrs. William Davidson, 30 Garscube Terrace, Edinburgh. He was born in 1893, and educated at Daniel Stewart's College, and Edinburgh University, where he graduated B.Sc. in engineering in 1914. He joined the army soon after the outbreak of war, and had been on active service abroad since May, 1915, was wounded in the great German offensive in March last, and only a few weeks ago he received the D.S.O. He had also been awarded the Belgian decorations of Chevalier de l'Ordre de la Couronne and the Croix de Guerre.

Major Davidson was a nephew of Mr. C. A. Squair, M.R.C.V.S., of Reigate, Surrey.

CROWHURST. At Framfield, Sussex, on Sunday, 27th Oct., from pneumonia following influenza, Herbert Crowhurst, son of the late Thomas Crowhurst, Registered Practitioner, aged 38.

Deceased succeeded his father, with whom he had been associated in the practice, and had carried it on successfully. He was well known over a wide district and was much liked and trusted, and there were many following at the funeral who had come miles to pay their last respect. There were many wreaths and flowers. He leaves a widow and four young children.

In 1890 there were six Crowhursts in Sussex on the list of Registered Practitioners. At the present time only one remains, and the death of Mr. Herbert Crowhurst severs another link with the past.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
		Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered. *
		Dogs	Other AnmIs											
Gr. BRITAIN.														
Week ended Oct. 26		5	1	3	4			1	5	30	59	1	27	7
Corresponding week in	1917			4	4					18	26	3	25	6
	1916			16	19					13	21	2	59	30
	1915			7	7	12	201		1	18	30		61	165
Total for 43 weeks, 1918		44	2	204	235	3	14	27	76	3724	7000	265	1180	463
Corresponding period in	1917			363	414			23	46	2036	3859	420	1888	918
	1916			442	519	1	24	43	111	1817	4065	203	3764	8889
	1915			463	527	12	201	41	73	†688	†1477	165	3391	14740

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Oct. 29, 1918

† Counties affected, animals attacked :—London 5  
Excluding outbreaks in army horses.

IRELAND		Week ended Oct. 19		...	...	...	...	...	...	Outbreaks	8	...	...
Corresponding Week in	1917	...	...	...	...	...	...	...	...	1	5	1	2
	1916	...	...	...	...	...	...	...	...	2	6	3	6
	1915	...	...	...	...	...	...	...	...	...	7	7	58
Total for 42 weeks, 1918			2	2	...	...	...	...	...	92	254	22	72
Corresponding period in	1917	...	3	5	...	...	1	1	...	41	316	180	1101
	1916	...	3	7	...	...	...	...	...	58	338	267	1559
	1915	...	1	1	...	...	1	3	...	62	333	209	1195

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Oct. 21, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1583.

NOVEMBER 9, 1918.

VOL. XXXI.

## A QUESTIONABLE PROCEDURE.

On another page we reproduce an odd paragraph from a provincial evening newspaper. It must be read with the mental reservations necessary with almost all newspaper information in these days; but, if it is correct, it is certainly disquieting. The gist of it is that the Ministry of Food has ordered a Commission to enquire into an "alarming mortality" in pigs in the Lincoln District. Some statements are added regarding this porcine disease, which are not very enlightening. We are told that the affection "appears to be epidemic"; and a belief that it is "a kind of influenza" is mentioned with apparent respect. This suggests some connection with the human epidemic now raging so widely; but veterinary pathologists will require some definite evidence before accepting such a theory as at all probable. It is further stated that the pigs almost always die of "inflammation of the bowels," which indicates that dietetic causes may not improbably be the chief or sole factors in its production. All this information is of much less importance than the single statement that "a Commission has been appointed by the Ministry of Food." Veterinary Surgeons will ask why the Ministry of Food acted at all in a matter which properly belongs to the Board of Agriculture.

It may be argued that the Food Ministry acted with the idea of preventing too serious an effect on the supply of pigs for food. This is not a sufficient reply. Government Departments constantly find their work bringing them into contact with subjects pertaining to other Departments; but that does not justify them in encroaching upon each other's ground. For Government Departments to communicate with each other, and assist each other when possible, is one thing; for any one of them to start doing the work of another is quite different.

The Board of Agriculture is the only Government Department fit to undertake the investigation of disease in farm stock. It possesses the staff of trained workers and the experience essential to the proper performance of such work. Its record for many years past shows that it is fully capable of performing first-class work in this direction. No other department could be relied upon to produce even second-class work; and no other should attempt such inquiries. Perhaps after all this report may prove to be a mere newspaper romance; but, even so, it suggests a very real danger, which the profession should be prepared to meet. We have had previous experience of this usurpation of the functions of the Board of Agriculture, notably by the Local Government Board. It is likely to increase in these days of multiplicity of departments; and the Food Ministry is certainly a sufficiently aggressive body to attempt it.

## FURTHER OBSERVATIONS ON SODIUM CHLORIDE.

By CAPT. W. W. LANG, A.V.C.

Six months further investigation confirms the results published in an article on Salt in *The Veterinary Record* of 23rd March, 1918.

The treatment appears to be quite satisfactory in catarrh, strangles, all wounds (operation: including castration, and accidental), cellulitis, suppurative lymphangitis, tetanus, and biliary fever. The explanation appears to be increased osmosis, and the elimination of the toxins which are believed by many to have a repelling action on the leucocytes. In the language of the day, the mobility of the defending force is greatly increased while the defences of the invaders are swept away.

In cellulitis, in addition to the rapid diminution of the oedematous swelling, a feature of great importance is the anodyne action—no explanation is offered; animals too stiff to walk and extremely sensitive to touch on the affected part move and tolerate manipulation freely within 24 hours. It would be interesting to know whether the same anodyne action is obtainable in laminitis.

In contused wounds sloughing appears to be reduced to a minimum and healing takes place rapidly. I have in mind two cases of badly broken knees, one of lacerated hock just over the bursa, and one of bruised and torn stifles through failing to jump clear over a wall with a tiled top—all might easily have ended fatally or necessitated destruction. In these, as in all others, no attempt is made to disinfect the wound; all that is done is to keep it and the surrounding parts clean, ensure drainage, and lightly cover with gauze to keep off flies.

In biliary fever, too, the period of convalescence due to the resulting anæmia and debility is also considerably shortened. The icteric symptoms vanish usually in two or three days closely followed by the petechial spots, as the result of saline in addition to the usual forms of treatment.

As our most valuable aid to putting on condition salt is absolutely proved. Lately, linseed and groundnut oil have been added with excellent results; the dose is one pint with half-a-pound of salt in two gallons of water daily—less oil tends to constipation, while the above amounts, in addition to their nutritive action, act on the fæces similarly to liquid paraffin. Neither purging, nausea, nor loss of appetite has been noticed—this applies to the normal dose of aloes, too—though the treatment has been continued for seven consecutive days decomposition of the oil appears to be pre-

vented. Sesame oil has not proved so satisfactory, perhaps on account of adulteration, as I believe it was purchased locally.

The lubricant action led to this method of using oil in cases of sand or grit in the colon, but as nothing eventuated, nux vomica has been added with a measure of success. Peristalsis appears to be considerably reduced in the dilated portion of the bowel containing the offending material—in one case of an animal which had "colic" ten times in two years the bowel was considerably thickened by fibrous tissue. So far, one ounce only of nux vomica has been given daily, but the dose may be increased with advantage.

Half-a-pound of salt appears to be a sufficient dose for all practical purposes, though in tetanus I give this amount twice during the first day's treatment. When an animal goes off his feed, as occasionally happens, the salt is withheld for a day, when the appetite as a rule returns. The practice is now to miss one day a week, usually Sunday.

Recently two animals have shown that they cannot tolerate salt, not even in six ounce doses, but these are the only two in probably a thousand cases.

#### ABDOMINAL SURGERY—WITH SPECIAL REFERENCE TO SODIUM CHLORIDE AND CHLORAL HYDRATE.

With a view to testing the value of saline in such cases, three horses down for destruction were operated on, one through the flank by splitting the muscles, and two through the linea alba, one in front of and the other behind the umbilicus. In the two latter the fore legs were pulled up by one pulley and the two hind by another, giving a free field.

Being without an expert anaesthetist and fully alive so the necessity for perfect anaesthesia, chloral hydrate 3iss intravenously was given to each with excellent results from an anaesthetic point of view, unconsciousness was complete for about one hour and a half.

All abdominal organs were freely manipulated to familiarise my sense of touch—this, of course, greatly increased the tendency to manipulative shock—while in the second case an attempt was made to evacuate a quantity of grit in the last portion of the double colon. This failed for two reasons:—on account of the mesenteric attachments the affected portion of the bowel could not be brought outside the wound for operation, while the narrow portion prevented the insertion of the hand. The bowel was incised in two places, but failure to remove more than a small quantity was the result. The operation was completed in the first by skin suture only, in the other two by suture of the abdominal wall and skin—suture of the peritoneum was not carried out, but it ought to have been done. In these two, before closing the skin wound a number of stiff wires were placed across the abdominal wound to lend support; the distance apart was one inch and a half, while each end was brought through the skin three inches on either side and turned round. As they were in no way intended as sutures about two inches of play

was allowed to each. The skin was punctured by means of the equine trocar and canula while the latter was used as a director for the wires. Unfortunately these two did not live long enough to prove or disprove the value of the method employed, but the impression of the support was good.

One of the latter, too, was badly affected with shock shortly after the completion of the operation, so half-a-pound of salt in solution was given while she lay, and she was warmly covered up. In the case of the other two the saline was given on rising, and a second dose to all about 8 p.m., and again next morning. All lay for about seven hours and were then returned to their boxes and tied up.

Every one of the three developed pneumonia (hypostatic)—the breathing was accelerated next day, but I attributed this to pain, while the temperature never rose above 104° F. The first, the flank case, recovered, but the other two died, one in 42 and the other in 48 hours. Post-mortem proved the existence of pneumonia; in one case there was little inflammatory action round the edge of the wound, while in the other there was rather more, but not much wrong with the bowel which had been incised. I attribute death in both cases to hypostatic pneumonia.

On discussing the matter with a medical friend I was informed that all narcotic poisons increase the permeability of the lung tissue and that, of course, the solution would further increase this action; also that the discharge of bloody urine (renal hæmorrhage), which I had noticed, was due to the narcotic.

Apparently the case of pneumonia which followed ovariectomy, which I mentioned in my previous article was brought about in the same way, and was not due to the entrance of saline into the lungs as I then thought. I now know that saline solution entering the lungs does not necessarily cause pneumonia; this will be discussed later.

In no case has pneumonia followed the intravenous injection of chloral hydrate or the administration of salt solution per os alone. Therefore, the combination in the doses given appears to be a dangerous one.

It may be that one to three pints intravenously, as recommended in "Veterinary Therapeutics" (Wallis Hoare), would be innocuous and suffice to ward off shock until the effects of the chloral hydrate have passed away. As an anaesthetic for abdominal work chloral hydrate as given appeared very satisfactory, and it required no watching, while the post-operative quiet of several hours must be of value.

#### ANIMAL HOSPITALS.

With the idea of animal hospitals throughout the country I heartily agree, I expect that the most important feature in the near future will be abdominal surgery. Too long have we looked on helplessly while an unfortunate horse has died a cruel death from twisted bowel, but I do not believe it is beyond the wit of man to combat many such cases. It is only a few years since tampering with the peritoneum was considered a fatal procedure;

now, rigs are operated on through the inguinal canal and the flank; ovariectomy is performed through the vagina and also the flank, while successful operations for the radical cure of hernia have been recorded. Those of us, too, who practice canine surgery are gaining experience not only of great value now, but valuable as a stepping stone to still greater things.

Operations under the best conditions, expert supervision, trained nursing, and a proper environment will bring to a successful issue what might otherwise prove fatal, and will make our successful cases more successful by restoring the patients to usefulness at a much earlier period.

#### STOMACH TUBE—DANGERS ATTACHED TO ITS USE. TRANSMISSION OF CONTAGIOUS DISEASE—VARIOLA.

Recently over 30 horses a day were under saline treatment for debility and various other conditions, most of them for a period of seven days at a time. Before it was quite realised what was happening, a few were found to be suffering from variola, and, as after events proved, many more were in the incubation stage—in artificial inoculation the incubation period appears to be five to six days. Altogether over 40 were ultimately affected, and all showed the lesions in the left nostril—that invariably used for the passing of the tube. We failed to detect the original case.

As it was imperative to continue the saline in several cases of variola, and also to treat others non-affected, the tube has since been immersed in a solution of perchloride of mercury, 1:1000 between each case—carbolic acid is not now on issue to veterinary hospitals. The perchloride solution was recommended as that least likely to injure the rubber, but it does not appear to be strong enough, or the period of immersion is too short, because two more cases have occurred. Naturally the non-affected were all treated first in the day. Now the need for treating variola cases for other conditions has passed away, and therefore no fresh cases as the result of the use of the tube are anticipated.

From the illustration it is evident that the tube should always be disinfected between each case as a matter of routine. It is indeed fortunate that it was the benign disease variola and not something more serious.

#### FLOODING THE LUNGS WITH SALINE.

Unfortunately, on three occasions the saline solution has been accidentally pumped into the lungs, once by an officer who ought to have known better, and twice by natives who were carried away by the apparent simplicity of passing the tube. Both the latter, in their anxiety to be of real assistance, passed the tube without permission in the temporary absence of the N.C.O. in charge.

It is remarkable indeed how these animals showed so little inconvenience while the tube was in the trachea. Recently, at a demonstration I personally kept the tube in the trachea for a considerable time without even a cough.

*Case I.* The quantity pumped into the lungs was estimated at 1½ gall. The temperature rose to

107° F. in the evening, but the animal was apparently all right the following day. No pneumonia supervened.

*Case II.* Had about a gallon of saline; temperature rose to 105° F; following day all right; no pneumonia.

*Case III.* This is the only one of three I saw. Had about a gallon of saline and a pint of linseed oil. Result—fatal.

The following is the clinical picture—I understand it was the same in all:—Lying on the chest with fore legs out; swaying the head and neck from side to side and at the same time rubbing the trachea across the knees; continuous flow of froth from both nostrils; deep, laboured breathing; cyanosed membranes; and apparently perfectly sensible.

From the description given to me of the other two cases, a fatal termination was not anticipated, so no treatment was adopted. Apparently the best treatment would be tracheotomy as low down the neck as possible.

The above incidents are reported so that others may profit thereby.

#### SEPTIC OR CONTAGIOUS MAMMITIS.

Mr. Drennan's paper before the North of Scotland Veterinary Society is greatly interesting, as this disease has been rather prevalent of late.

I venture to write my experience as regards treatment. The disease is most virulent, and causes a number of deaths, and usually it is the best milkers that are affected. I never hesitate, if the permission of the owner can be obtained, to amputate the teat or teats as early as possible; in doing this it is necessary to cast the cow, cut round the teat with the scalpel held in a line with the long axis of the teat. Any bleeding vessels can easily be tied with suture material.

The usual medicines are given, but I look upon them as almost useless unless free drainage is given to the udder, which is fomented and syringed out with weak Creolin, finishing off with 1:6 Hydrogen peroxide.

As the inflammation subsides the udder gets less and eventually the quarter atrophies; the wound usually heals completely.

These cows if bulled again are usually profitable milkers; but if operation is not performed either the cow dies or there is permanent enlargement of the quarter and disfigurement, with great risk at subsequent calving of another attack of mastitis.

As regards the killing of cows for human consumption when affected with septic mammitis, I venture to think it a great question if the carcass is fit for food, for the animal is seldom killed until the case looks hopeless, which means that it has had plenty of medicine and is a case of acute septicæmia with high temperature. The carcass is then a very bad colour and the fat does not set. Some may think the operation is drastic treatment, but if the operation is done under chloroform the relief given is great and can be quickly seen, whereas to leave the teat on and struggle to draw the secretion or

discharge three or four times a day from a hot and painful quarter is very unpleasant for the cow.

Operation, too, does away with the necessity of rubbing in liniments, etc., after fomentation, which unless carefully done must cause suffering to the animals, as they dislike lying down owing to the increased pain caused in the udder.

The use of vaccine as a curative in this disease is probably of not much service as the infection is so rapid.

G. E.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### THE LIFE-HISTORY OF *DISTOMA LUTEUM* (N. SP.) WITH NOTES ON SOME CERCARIE AND REDIE FOUND IN SOUTH AFRICA.

An article upon this subject by J. D. F. Gilchrist appeared in *Parasitology* for April, 1918. Although fluke disease in sheep is very common in certain parts of South Africa the intermediate host of the parasite has not been recognised. The fresh-water snail (*Limnaea truncatula*) which is the intermediate host in Europe has not been recorded with certainty in South Africa. The commonest fresh-water snail there is (*Physa Isidora*) *tropica*, and this mollusc harbours in great abundance stages of fluke very closely resembling those of the liver fluke, the important difference, however, being that even when placed in the most favourable conditions the free-swimming form (cercaria) was never observed to encyst.

The author's investigations proved that the forms found in this snail were in reality stages in the life cycle of a small fluke commonly found in the alimentary tract of the frog in South Africa. The adult form was very similar in appearance to *Distoma echinatum*, and on account of its colour it is named by the author *Distoma luteum*.

The problem as to the life cycle of the South African liver fluke thus still remains unsolved.—*Tropical Veterinary Bulletin*).

##### CHRONIC ARTHRITIS IN PIGS.

Sekiguchi and Ironse contributed an article upon this subject to Vol. 21 of the *Journal of Infectious Diseases*. Chronic arthritis, presenting various degrees of swelling and deformity, is not rarely observed in pigs brought to market, which are apparently in good health. These chronic lesions involve one or two joints. They may appear sporadically; or there may be various cases in the same piggery. By its character the disease much recalls arthritis chronica deformans of man, in which general symptoms of infection and nutritive disturbances are likewise often absent.

The authors were able to observe and follow 21 of these cases in pigs brought to market for sale. In these the arthritis varied in gravity from a simple enlargement of a joint to a notable thickening and deformity which resembled a chronic tubercular process in aspect.

By the microscopical examination of material from these cases the authors found bacillary microbes 17 times. In six cases in which streptococci were isolated, either alone or associated with bacilli, the lesions had a chronic suppurative character with fistulous channels, as in chronic tubercular lesions. A more accurate examination enabled tuberculosis to be excluded; as a matter of fact, the animals furnishing the material did not show tuberculous centres in any other part of the organism.

In nine cases the infection was purely bacillary. The lesions consisted, in the first stages, in a slight granulation upon the affected joint, and in advanced stages in a diffuse and grave process of ulceration with notable deformity of the joint. In some of these cases a limpid or slightly turbid but never purulent liquid was extracted from the joints. The liquid itself was completely sterile; and the bacteria were only found in sections and cultures prepared from the granulation tissue.

Morphologically, and in many points culturally, the bacilli resembled the *bacillus pyogenes* isolated by Dutch and German from cattle and swine, with the difference that the authors' bacilli did not liquify either gelatine or Löffler's serum. The same resemblance existed with regard to the pathological alterations. The latter were identical with those caused by the *b. pyogenes*; that is, they were of chronic suppurative character, with a tendency to the formation of granulations and fibrous tissue. The authors, however, never saw, either in the natural or the experimental disease, the pulmonary infections that are frequently found in animals infected with *b. pyogenes*.

Although in their cases the bacillus isolated was almost always the principal etiological factor and streptococcus only a secondary invasion, the authors do not venture to affirm that the bacillus is the unique infective agent of chronic arthritis in swine. It is possible that other organisms of suitable virulence may cause analogous processes in pigs; but the tubercle bacillus does not seem to be responsible for chronic articular lesions in pigs otherwise perfectly healthy.

The disease causes a not negligible damage even when the animals are brought to market in good general condition, and a much more serious one when it assumes an enzootic character. Studies on a larger scale and by more numerous workers are required to gain an exact and complete knowledge of its etiology.

The authors were able to produce articular lesions experimentally in pigs by subcutaneous and intravenous injections of the *b. pyogenes*. Hence it is possible that, in infected surroundings, the bacillus penetrates into the organism by means of some wound or lesion of the skin. The possibility of an infection by the digestive tract cannot be excluded; for in one case the chronic arthritis was accompanied by pronounced chronic lesions of the mesenteric lymphatic glands.—(*La Clinica Veterinaria*)

W. R. C.



# NORTH MIDLAND VETERINARY ASSOCIATION.

(NATIONAL V.M.A.—NORTHERN BRANCH).

A meeting was held at the Grand Hotel, Leopold Street, Sheffield, on Tuesday, August 27th. Prior to the meeting the members had tea together, at the invitation of the Sheffield practitioners.

The following were present at the meeting:—Mr. W. Collinson, South Anston, President, in the chair; Messrs. F. L. Somerset, Chesterfield; E. Marrison, Bakewell; T. C. Fletcher, H. Thompson, S. E. Sampson, S. H. Nixon, J. S. Lloyd, Sheffield. Visitors: Capt. R. M. Lawson, A.V.C., S.B., and Mr. E. A. Rucker.

Apologies for inability to be present were received from Mr. J. S. Wheatcroft, Wentworth; and others.

The minutes of the last meeting having been printed and circulated, were taken as read, and on the motion of Mr. Fletcher, seconded by Mr. Sampson, were confirmed.

The minutes of the Council meeting held on Aug. 6 were read by the Hon. Secretary, and on the motion of Mr. Fletcher, seconded by Mr. Thompson, were also confirmed.

Considerable discussion took place on the question of Veterinary Fees, the subject being opened by Mr. E. Marrison, of Bakewell, who was one of the signatories to the circular sent out by some of the practitioners of Derbyshire. Mr. Fletcher, in discussing the circular, thought that veterinary fees ought to be doubled, and proposed a motion to that effect. This, in the course of his discussion, was seconded by Mr. Thompson.

An amendment was proposed by Mr. Marrison, That a minimum of 50 per cent. advance be made on all charges. This was seconded by Mr. Sampson, and after being amended to be restricted to night visits, was carried.

The items in the circular were afterwards gone through seriatim; but upon coming to the question of medicines, the meeting decided that although the cost of drugs had considerably increased, seeing that practitioners varied much in the drugs used, it was not possible to fix definite charges. Members are therefore left to charge increased prices according to the drugs used.

It was pointed out that the Council of the National Veterinary Association desired the branches to discuss this matter of increased charges and to forward to the Secretary the results arrived at. It was consequently decided to adjourn further discussion of this matter until the next meeting.

The SECRETARY read an application for a donation to the Victoria Veterinary Benevolent Fund, and upon the proposal of the Hon. Secretary, seconded by Mr. Sampson, the Treasurer was instructed to send a cheque for two guineas to this Fund.

The question of members being called up for the army was next considered, and the Hon. Secretary was instructed to call a special meeting of the Association should any member be called up.

A short discussion then took place on a paper by the Hon. Secretary, on Swine-fever Serum Inoculation, postponed from the last meeting. Messrs. T. C. Fletcher, S. E. Sampson, and F. L. Somerset took part in the discussion.

It appeared to be generally agreed that the serum inoculation was successful in controlling outbreaks on infected premises by preventing the disease spreading to healthy pigs. It also enabled owners to re-stock their infected premises much earlier than if a full period of detention and isolation were enforced. Inoculation, however, since it was carried out only on infected pre-

mises, did little or nothing to prevent outbreaks of the disease occurring on other premises.

Mr. SOMERSET remarked on a practice of vaccination carried out in America, and, replying to the discussion, the Hon. Secretary remarked that what appeared to be necessary was a standardised virus to be injected into herds of pigs at the same time as serum inoculation was carried out. So far it appeared that a standardisation of swine-fever virus had not been definitely accomplished, as in connection with vaccination in America and in test cases in this country, a very considerable mortality had resulted amongst the herds of pigs vaccinated.

A vote of thanks to the Secretary for his paper was proposed by Mr. Sampson, seconded by Mr. Fletcher, and carried.

The next item on the agenda, namely, "Notes on interesting cases," by Mr. S. H. Nixon, Sheffield, was, with his consent, postponed to the next meeting.

A series of interesting specimens were then shown by several members. The President showed the fore-leg of a foal which terminated at the elbow; a rough calculus taken from the floating colon of a horse; a testicle from a yearling showing pus in the centre, and one from a "rig" which was found deep in the abdominal cavity but was apparently normal. He also showed a specimen of very well-marked shear-mouth in an old horse, one side being affected whilst the other side was normal. His interesting remarks in dealing with each specimen were much appreciated by the meeting.

Mr. SAMPSON showed the penis of a bull affected with papillomata.

A vote of thanks to the President for his specimens and for his conduct in the chair, and to Mr. Sampson for his specimen, brought the meeting to a close.

J. S. LLOYD, Hon. Sec.

## ANNUAL REPORT OF THE VETERINARY INSPECTOR FOR THE BURGH OF PAISLEY: 1917.

To the Provost, Magistrates, and Councillors  
of the Burgh of Paisley.

Gentlemen,—In conformity with the Public Health (Scotland) Act 1897, The Diseases of Animals Acts 1894–1917, and the Maintenance of Live Stock (Scotland) Order 1915, I have the honour to submit my Annual Report for 1917.

### Public Health Act.

For the year ending 31st December, 1917, I made 92 visits and examined 1551 milch cows. There were 15 cases with Chronic mastitis, not giving milk from affected quarters. One case of Indurated udder: on microscopic examination of the milk of this animal the result was found to be negative.

On the request of the Medical Officer I visited a farm and examined 24 cows with reference to the occurrence of Diphtheria on the premises. On the whole I found the animals in a very healthy condition.

During the year I seized in the Public Market under the Public Health (Scotland) Act 1897, four aged emaciated cows—two affected with General Tuberculosis, two with Tuberculosis and Johne's disease. Three of these animals were slaughtered and destroyed with the owners' consent: owing to a difficulty in finding owner of the fourth, a warrant had to be procured from a Magistrate for its destruction.

### Burgh Slaughter House.

During the year I examined 211 carcasses:—Cattle 195, Sheep 12, Swine 4. Of these, 46 carcasses were passed; 165 were condemned as unfit for human food. Weight of meat condemned—32 tons, 16 cwt., 0 qr., 8 lb.

*Diseases of Animals Act.*

As usual, weekly visits were made to the Cattle Market, and all cattle, sheep, and swine exposed for sale were examined by me to prevent sale of any visibly diseased animals. The numbers examined were: Cattle 16,208, Sheep 23,903, Swine 173.

58 licences were granted for the removal of 173 swine from the Market to various slaughter houses; and 41 licences admitting 124 swine into the Burgh.

During April there was a reported outbreak of Swine fever, necessitating the examination of 17 swine which had been in contact with a pig that died of the disease. Notice prohibiting their removal was duly served.

*Maintenance Order.*

In accordance with this Order 110 in-calf cows were examined and found to be affected as follows:—Defective udders 100, Chronic mastitis 7, Tuberculosis of the udder 2, Rheumatism of hock joints 1. These animals were slaughtered under licences.

Veterinary attendance on Corporation horses necessitated 80 visits.

In the month of September I had three garden plots of potatoes destroyed at the Destructor owing to their having wart disease.—Your obedient Servant,

ANDREW MCGEOCH, M.R.C.V.S.,  
Veterinary Inspector.

## THE CLINICAL THERMOMETER ORDER.

The *London Gazette* of October 11 published the following Order, which is of considerable importance to Veterinary Surgeons:—

The Minister of Munitions, in exercise of the powers conferred upon him by the Defence of the Realm Regulations and all other powers thereunto enabling him, hereby orders as follows:—

1. On and after October 21, 1918, no person shall sell, offer for sale, supply or deliver any clinical thermometer which has not been tested, approved and marked, in accordance with the undermentioned rules, or any other rules made from time to time by the Controller of Glassware Supply on behalf of the Minister of Munitions and for the time being in operation.

2. This Order may be cited as the Clinical Thermometer Order, 1918.

3. All applications with reference to the above Order should be made to the Controller of Glassware Supply, Ministry of Munitions of War, 22-23 Hertford St., W. 1.

## RULES.

(1) Before any clinical thermometer is sold, offered for sale, supplied, or delivered, the same shall be forwarded carriage paid to the Director of the National Physical Laboratory, Teddington, for testing and approval.

(2) For a period of one month after the date of the Order, no thermometer showing at any point in its registration of temperature an error of more than .4° F. will be approved. On the expiry of this period, no thermometer shall show an error exceeding .2° F. over the range up to 106° F. Above this temperature the error shall not exceed .3° F. For thermometers graduated in degrees other than Fahrenheit, corresponding tolerances will be allowed. A thermometer will not be approved if it is not self-registering with a constriction, which must be such as to retain the index column and allow of the mercury being reset.

(3) Approved thermometers will be marked with the National Physical Laboratory trade mark and the year

of test, thus:—**№ 18.** The charge for testing the thermometers will be 3d. (three pence) per instrument, payable in advance to the Director of the Laboratory, this charge to cover return carriage upon the instruments to any place in the United Kingdom and also insurance against loss or damage in transit both ways and during test at the Laboratory. All thermometers submitted for testing to the Director must be clearly engraved with a distinctive number. Thermometers not already so engraved will be engraved at the Laboratory at a charge of 1d. (one penny) per instrument, payable in advance to the Director.

NOTE.—The National Physical Laboratory is prepared to issue a certificate setting out details of the results of the prescribed tests in regard to any thermometer which is approved in accordance with the above rules, on payment of an additional fee, particulars of which may be obtained from the Director of the Laboratory.

Cheques, etc., should be made payable to the Secretary, Department of Scientific and Industrial Research, and should be forwarded to the Laboratory. Cheques, etc., should be crossed "Bank of England a/c His Majesty's Paymaster General."

All applications with reference to the above Order should be made to the Controller of Glassware Supply, Ministry of Munitions of War, 22/23 Hertford Street, London, W. 1.

The foregoing Order as it stands would have made it impossible for doctors and veterinary surgeons to obtain a clinical thermometer on or after October 21, inasmuch as on and after that date it would have been illegal to sell any clinical thermometer not tested, approved, and marked in accordance with the rules made under the Order, and on and after November 11 no thermometer showing an error of more than .4° F. would have been approved. Under these circumstances the Pharmaceutical Society made urgent representations to the Controller of Glass Supply as to the imperative need for an extension of the period of grace, the result being that the Controller has made the following concessions:—

(1) No steps will be taken to enforce this Order until November 21.

(2) The period during which clinical thermometers will be approved if they show an error of no more than .4° F. will be extended so as to include those received at the National Physical Laboratory on or before November 21. This concession, however, applies only to stocks held on the date of the Order (October 11) by dealers other than manufacturers.

Veterinary Surgeons are warned not to purchase after October 21 any thermometers that have not been verified.

F.R.C.V.S.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:— (Oct. 19; Nov. 5).

William M. Ferguson, Dundee	£1	1	0
F. C. Scott, Capt. A.V.C.	1	1	0
C. E. J. Meikle, Sunderland	1	1	0
Previously acknowledged	1074	4	11

£1077 7 11

## ARMY VETERINARY SERVICE.

Buckingham Palace, Oct. 31.

The King held an Investiture in the Ball Room of the Palace at 10.30 o'clock this morning. The following were introduced into the presence of the King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

THE MOST DISTINGUISHED ORDER OF  
SAINT MICHAEL AND SAINT GEORGE.

COMPANIONS:—

\* \* \* \*

Colonel ERNEST KENDALL, Australian Vety. Service.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Nov. 2.

REGULAR FORCES. ARMY VETERINARY CORPS.

To be temp. Lieut.:—J. B. A. A. Dufresne (Aug. 27).

Dir. of Vety. Servs.—Temp. Maj. (actg. Lt.-Col.) C. E. Edgett, D.S.O., Can. A.V.C., from Asst. Dir. of Vety. Servs., and to be actg. Col. whilst so empld. (Aug. 6).

Nov. 4.

Temp. Qrmr. and Lt. E. A. Germany to be Capt. under Art. 330, R. Wt. for pay and promotion (Oct. 13).

Nov. 5.

To be temp. Lts.:—J. L. Millar (Aug. 27); H. H. Leach (Oct. 21).

TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Oct. 29.

Capt. (actg. Maj.) F. W. C. Drinkwater relinquishes the actg. rank of Maj. on ceasing to be empld. as A.D.V.S. (May 1).

Capt. J. J. Ridley to be actg. Maj. while empld. as D.A.D.V.S. (Oct. 10).

## VETERINARY FEES.

To the Editor, "The Veterinary Record."

Dear Sir,—I am a Veterinary Inspector in a country town (Borough) of 12,000 inhabitants. I attend 26 cattle markets and 4 fairs in the year, carry out the sheep dipping orders, and all other duties of a Veterinary Inspector. I am also Inspector of Meat—about 1300 beast, 2100 sheep, and 800 pigs yearly—and this takes up two half-days and several casual visits on other days each week.

I am also Inspector of Milk Shops, Dairies, and Cowsheds—about 40—and about 180 cows, and these are inspected monthly, except that the cowsheds are missed in the summer months, when the animals are at grass.

I succeeded another veterinary surgeon in the appointment 10 years ago, and the total annual salary is £60, which I am inclined to think is too small.

If this is in accordance with the pay for similar appointments elsewhere I can hardly think it offers much inducement to our students to take up this branch of our profession, and I should be obliged if any members of the profession could enlighten me as to salary paid for similar duties elsewhere, so that, should I apply for an increase, I may be able to give instances of better terms—of which I have no information at present.

I am, yours faithfully,

F.R.C.V.S.

## "CASTING SHADOWS BEFORE."

Dear Sir,—Your editorial note in the current issue of *The Veterinary Record* is full of reflection and possible suggestion. Your reference to the communications which have already passed between the Council and the Government concerning the re-settlement of veterinary surgeons in civil life after the war appears most timely.

To my mind this is a problem which will require the utmost sympathy of the members who stayed at home. I have no inkling of the views of the Council, or of the Department which is entrusted with reconstruction, as to the procedure to be adopted in the case of our profession, but I think a scheme might be evolved whereby deserving members should be able to start in partnership with the minimum of anxiety on the eternal question of ways and means.

Everyone is aware that the average Captain A.V.C., who joined up in the early days of the war has not been able to save a lot of money, while simultaneously he has lost his practice which provided a living for him and his wife and family in pre-war days. Therefore it is up to the profession to help all deserving members who desire to practise at home.

I think a workable scheme might be formulated on lines whereby the payment of a peppercorn premium, say of £100, would guarantee a half share in a practice of a minimum of £275 p.a. net for two years, and a maximum of half share of the profits p.a.; at the termination of two years the working expenses to be equally divided between the partners. By that time a deserving man would by his industry and integrity have established a certain *locus standi* in a district.

Perhaps the foregoing bald suggestion may seem at first sight to be Utopian, but the world is not what it was in July 1914.

If this question is tackled in a right spirit by the authorities, those who lost practically all on mobilisation ought to be started again if willing to adapt themselves to altered conditions; and, in my opinion, the department which deals with reconstruction after the war should provide funds which would enable some of our members to start practice again on demobilization.

Yours faithfully, F.R.C.V.S.

## Personal.

Sir WILLIAM HENRY THOMPSON, M.D., who was drowned by the torpedoing of the "Leinster," was scientific adviser to the Ministry of Food and one of the oldest members of the staff.

He was Professor of the Institute of Medicine in Trinity College, Dublin, and a recognised authority on dietetics and the physiology of nutrition, in connection with which he carried out important investigations having special reference to food values.

The deceased, who was an honorary member of many British and Continental Medical Societies, was made a K.B.E. in 1917. He was Examiner in physiology to the Ryl. Coll. of Vety. Surgeons.

Mr. A. I. MACCALLUM, M.R.C.V.S., J.P., Edinburgh, has resigned from his position of Vice-Chairman and Life Member of the Board of Management of the Royal (Dick) Veterinary College, owing to the affairs of the College "coming between him and his sleep." The Board has elected him Honorary Life Member.

Mr. MacCallum delivered a lecture at Maybole (his native place), on 18th ult., on "Diseases of Animals common to Man," and dealt at length with tuberculosis, anthrax, glanders, and rabies.

So far there has been no award of bursaries for which Mr. MacCallum gave £2000 towards defraying the cost of education of students who enter the Dick College from certain parishes in Ayrshire.

**BACTERIOLOGY.** At the annual meeting of the Ross Memorial Hospital, Dingwall, Mr. GEORGE GAIR, M.R.C.V.S., Conon Bridge, who has been doing this class of work for the past few years, was appointed Bacteriologist to the hospital, including the county fever wards. Mr. Gair has made a special study of the subject in Edinburgh Royal Infirmary during the past five years, and has written several contributions to leading medical papers.

### Sheep Diseases.

At the annual meeting of the Cheviot Sheep Society held at Hawick, it was decided not to take any action in connection with a communication on the subject from the Glasgow Veterinary College, in view of the investigation inaugurated by the East of Scotland College of Agriculture into sheep diseases.

In the House of Commons.—Answering Mr. Hogge, Mr. Monro (Secretary for Scotland), in a written reply, says: An investigation into diseases affecting sheep, including louping-ill, is at present proceeding at the Glasgow Veterinary College, and the relative expenditure is being met by the Board of Agriculture for Scotland from the Agriculture (Scotland) Fund. A similar

investigation was begun at the Royal (Dick) College, Edinburgh, but has been suspended meantime, as those engaged in the research have been called up for service with the Army Veterinary Corps.

### "Strange mortality in pigs."

The Ministry of Food has ordered a Commission to inquire into the alarming mortality in pigs in and around Lincoln, which continues unabated. The disease from which the animals are suffering is a mystery. It appears to be epidemic, and much credence is given to the theory that the porkers are being visited by a kind of influenza. Death is almost invariably found to result from inflammation of the bowels. Whatever the disease may be it is very swift in its operation.—*The Bolton Evening News*.

### OBITUARY.

R. M. HAMILTON, M.R.C.V.S., Castleblaney, Co. Monaghan. Graduated, Glas: April, 1886.

Mr. Hamilton's death occurred at his residence, on Tuesday, Oct. 22nd.

BERNARD ALLAN SEARBY, M.R.C.V.S., Ramsey, Hunts. Edin: May, 1909.

Mr. Searby died 29th October.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
		Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
		Dogs	Other Animals											
Gr. BRITAIN.														
Week ended Nov. 2		10		2	2					40	73	5	24	14
Corresponding week in	1917			5	5				2	30	50	5	18	3
	1916			11	17		1	1	14	27	2	39	21	
	1915			14	15	8	33		15	36	1	59	197	
Total for 44 weeks, 1918		54	2	206	237	3	14	27	76	3764	7073	270	1204	477
Corresponding period in	1917			368	419			23	43	2066	3909	425	1906	921
	1916			453	536	1	24	44	112	1831	4092	205	3803	8910
	1915			477	542	20	234	41	73	703	1513	166	3450	14937

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive.  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Nov. 5, 1918

‡ Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND.		Outbreaks		Animals		Animals		Animals		Animals		Animals	
Week ended Oct. 26		...	...	...	...	...	...	...	...	...	...	...	...
Corresponding Week in													
1917	...	...	...	...	...	...	...	...	...	...	...	...	...
1916	...	...	...	...	...	...	...	...	...	...	...	...	...
1915	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for 43 weeks, 1918		2	2	...	...	...	...	...	...	92	256	24	76
Corresponding period in													
1917	...	3	5	...	...	1	1	...	...	41	323	191	1107
1916	...	3	7	...	...	...	...	...	...	58	350	274	1580
1915	...	1	1	...	...	1	3	...	...	62	340	216	1216

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Oct. 28, 1918  
NOTE.—The figures for the Current Year are approximate only.  
\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1584.

NOVEMBER 16, 1918.

VOL. XXXI.

## SECONDARY AND MIXED INFECTIONS.

Few pathological subjects have advanced so greatly in importance in the last quarter of a century as "mixed infections" and "secondary infections." This is more especially the case as regards secondary infections in specific diseases. In the eighties and early nineties the importance of these was underrated by most pathologists, and quite disregarded by many clinicians. Their occurrence was recognised, and the possibility of complications of specific disease arising from them was realised more or less vaguely; but very few even suspected the frequency and gravity of such complications.

To-day, every clinician can name specific diseases in which secondary infections are or may yet be proved to be most important complicating factors. Swine fever and canine distemper are perhaps the most striking examples; and what is known as "foot-and-mouth disease in a malignant form" is another. Strangles may ultimately fall into the same class; for it is quite possible that the streptococcus of Schütz, which was once universally regarded as its definite cause, may prove to be merely a secondary infection. A note which we printed a fortnight ago suggests that secondary infections may assume a hitherto unsuspected importance in epizootic lymphangitis. It has been thought that the unopened lesions of this disease were caused by the specific cryptococcus alone; but Carpano's researches cast considerable doubt upon this. He found pyogenic germs associated with the cryptococcus in practically two-thirds of his fairly numerous cases; and there is much to be said for his view that their influence upon the disease "cannot be negligible." These are only a few examples; every practitioner could cite others.

All these questions of secondary and mixed infections are of great importance. Pathologists everywhere are now studying them closely; and all clinicians should follow their results. Secondary infections are important enough as regards their influence upon the course, symptomatology, and prognosis of disease; but they are equally, if not more important from a therapeutic standpoint. Carpano points out their bearing upon the therapy and immunisation of epizootic lymphangitis; and the same truth holds in the case of other diseases. This requires no emphasis in these days when specific therapy, both biological and chemical, is coming more and more to the front. The success of such products as phylacogens, Leclainche and Vallée's polyvalent serum, illustrates the importance of mixed and secondary infections in therapeutics.

## B.I.P.P.—DEPOT TREATMENT OF WOUNDS.

By F. T. HARVEY, F.R.C.V.S.

In August, 1916, Prof. Rutherford Morrison, Northumberland War Hospital, introduced to the surgical world, Bismuth Iodoform Paraffin Paste, as a dressing for wounds, and suggested "Bipp" as a suitable name for the combination. We at once began treating wounds after the method of Morrison, and have continued to do so. Having thus had more than two years' experience of the use of the paste, it may not be out of place to direct attention to the matter in the pages of *The Veterinary Record*.

We do not remember to have seen any articles from veterinary surgeons dealing specially with B.I.P.P., and from inquiries made, it would appear that it is not largely used in veterinary surgery—at least in civil practice.

It may be said at once that the influence of Morrison's paste on the condition and progress of a wound is simply wonderful. It is a method of treatment which lends itself more particularly to the surgery of the farm and field, and we regard it as *par excellence* for wounds—those involving the bones, joints, and feet in particular. In advocating a new treatment, it is particularly necessary—in the words of Prof. Morrison himself—to avoid over-estimation from excess of enthusiasm, but we have never seen any results with the various wound dressings employed from time to time, at all comparable to those obtained when this form of paste has been used.

B.I.P.P. is composed of sub-nitrate of bismuth one part, and iodoform two parts, with sufficient liquid paraffin to make a thick paste. It is best freshly prepared, and the paraffin can be added to the mixed powder as required, care being taken to see that it is thoroughly incorporated and contains no lumps. Any consistency may be made, but the most useful are those of soft butter and thick cream. According to Drs. Helen Chambers and J. N. Goldsmith, the bactericidal action of Bipp results from the free iodine liberated from the oxidation of iodoform by oxygen, and by the nitric acid formed by the hydrolysis of bismuth nitrate. The decomposition occurs somewhat slowly in the wound, inhibits bacterial growth, and exhibits no irritating effect on the tissues; on the contrary, sedative effect seems to be produced, as indicated by the apparent absence of pain in the wounded part.

*Toxic properties.* In man it is not considered safe to use more than two or three drachms of the paste, and canine and feline patients should receive

correspondingly small amounts of dressing. We have used a drachm on a cat without bad results. There is no need to run any risks in these patients, as a little of the paste goes a long way with both dogs and cats. Poisoning either with bismuth or iodoform is not likely to occur in our larger patients, but even in these, very heavy dressings will be rarely necessary except in extensively contused wounds. We have so far never had reason to suspect the occurrence of any toxic effects, though such have been noted in man.

By way of illustration, it may be interesting to indicate a few of the types of wounds in which the treatment has been applied.

#### BROKEN KNEES.

We allude to those knees in which the injury is severe, and up to any degree actually short of fracture. The ligaments are torn, bone exposed, and joints open; in fact, there is extensive disorganisation of the face of one or both knees. In such cases the size of the skin wound will give no indication of the extent of the damage beneath, for this will only be evident after the parts have been laid open. The earlier these wounds are dealt with the better, for if left over forty-eight hours before treatment is properly taken in hand good results can hardly be expected.

*Treatment.* Soak the wound with tincture of iodine and cover with cotton-wool while the leg is being cleansed. Hair may be removed as desired. Explore the wound with a finger, having first well soaked the latter in iodine tincture. Cut the soft tissues through in the middle line in order to obliterate all pockets and any nooks likely to form so-called dead spaces, and thus establish drainage, and further enable the tissues to extrude any particles of grit which may have been overlooked at the first dressing. Again soak the parts thoroughly with the iodine solution, including the skin around the wound. Get the wound cavity as dry as possible, and then give every part a thorough dressing of of Bipp; this latter should be gently rubbed in. (Sterilised rubber gloves are supposed to be used when handling the wounds, but we have always relied on the bare fingers after well soaking them in the iodine tincture). An excess of paste may be left in the wound; the latter is then well covered with gauze or cotton-wool and a bandage applied. Time is well spent in doing all this, for unless the first dressing is carefully carried out the subsequent history of the case will be disappointing. Prof. Rutherford Morrison sums this up by saying that a clever surgeon is unnecessary in treating wounds, but that a careful one is highly desirable. If the knees are very badly damaged the wounds may be inspected on the second and third days, the discharge mopped up and any grit removed, and a little more paste may be lightly applied; and if this is done, the gauze or tow is best soaked in hot paraffin, either liquid or soft, as it does not then stick to the wound; moreover, gauze thus treated hinders coagulation of blood and lymph, favours drainage, and retards putrefaction. No bathing or washing of the wound is attempted.

After the third day the dressing is not disturbed, and beyond keeping it in position, nothing need be done for a week or more. There should be practically no swelling, pain, nor discharge. The greatest care must be taken not to break down adhesions formed in the depths of the wound by any late deep applications of the paste. Any infection of the wound at this stage will probably take place from the surface or skin margins, and these can be guarded against. The wounds sometimes look rather dirty when opened, but they will probably be clean surgically.

One knee recently treated had a good deal of grit ground into the tissues, and the bone exposed. It was dressed twice only in twenty-seven days, by which time healing was practically complete. The knee was never bandaged, the cotton wool having stuck on, remained dry, so was not disturbed. Ancillary treatment in these cases, such as the use of slings, immobilization of the joint, exercise, etc., must be left to the discretion of the practitioner. Peroxide of hydrogen is excellent in later stages, when the wound is granulating.

#### WOUNDS IN THE REGION OF THE STIFLE AND ELBOW JOINTS.

Contused, jagged wounds in these part are often caused by the animal being dragged or forced along a hard and rough surface. The skin is ground through, the subcutaneous tissues are torn widely, the fascial planes often more or less damaged, and in some cases the articular cavities may be open. Several areas, perhaps are injured, and all will have grit, earth, and stones ground into the tissues. Such wounds are particularly prone to sepsis, and when once thoroughly infected are most troublesome and unsatisfactory in many ways, and if septic arthritis supervenes a fatal termination is common enough. The Bipp treatment has given us excellent results. After the dressing is applied, some cotton-wool or gauze is put on, and little after attention is usually required. The absence of pain, discharge and swelling is notable, and healing of the parts proceeds apace. The usual diurnal antics of bathing, lotioning, twitching, etc., worry the animal no longer, and the wounds repair under more congenial conditions than of old.

In regard to the draining of these wounds; opening or bottoming the main cavity is sometimes not enough. Smaller pockets may exist deep down in the wound, especially when the fascia has been damaged. Any such partially torn tissue should be divided, otherwise tension may occur, blind spaces remain, and a septic condition be promoted.

#### WOUNDS IN THE ORBITAL REGION.

Injuries here are peculiarly suitable for the application of the treatment. Wounds in the temporal fossæ are difficult to drain and a bacterial invasion of them not infrequently becomes a matter of gravity.

A cob received a kick penetrating the soft tissues and injuring the bone above the left eye. We saw the case about thirty hours after the infliction of the injury. The parts were very painful and



swollen, the eyeball was invisible and the wound looked angry, with some oozing of serum; the orbital fat was inclined to come outside, after the fashion of a hernia cerebri. Two small pieces of bone were removed from the depths and the external wound was enlarged. The usual Bipp procedure followed, care being taken to get the paste well down into the cavity. The owner was instructed to re-bipp on the second and third days. We saw the case again on the fifth day and found the improvement marvellous. The swelling had gone, the eye looked natural, the fat had receded, and the wound was closing and almost dry; little subsequent attention was needed.

#### WOUNDS ON JOINTS GENERALLY,

Horses, in particular, often get kicked or stabbed close to a joint. The wound is frequently small and unimportant-looking. The owner fomented and rubs in somebody's special cure-all or embrocation, or something of the kind, with the remark that "That's nothing; it will be all right in a day or two." The so-called treatment is continued daily, and on the third or fourth day the animal is found standing on three legs, and the case becomes one of septic arthritis. Now if these cases were managed somewhat after the manner we have indicated above, they would practically all heal without the slightest difficulty—as we have often satisfied ourselves. The fact that the joint has been opened is by no means a bar to a happy issue; the trouble being that these cases so often do not come under the purview of the veterinary surgeon until a severe sepsis has been brought about.

How do these liniments and extracts, or whatever they are called, bring about a septic arthritis? Sir Almroth Wright, in discussing the effects of irritants on wounds generally, says: "There is produced—and this applies quite generally in connection with every application which irritates the skin—first reddening of the epidermis: then effusions and blistering; and then there develops in the blisters a luxuriant growth of serophytic microbes. In other words, by our misdirected energy we cultivate at the very doors of our wound, upon the very area of skin which we intend to keep free of microbes, a copious harvest of streptococci and staphylococci."

In connection with these wounds, it is interesting to note some of the characteristics of joints, and their behaviour towards infection and treatment: "Most joints are lined by synovial membrane. This possesses, in common with other serous membranes, two important characteristics on which all successful treatment is based—namely, (1) an extraordinarily strong capacity for overcoming septic infection; and (2) an equally strong capacity for forming adhesions. These adhesions form with considerable readiness; at the end of twenty-four hours they are very well marked indeed; sometimes they may form within several hours. As a result of this capacity for forming adhesions the advent of sepsis from without is largely prevented, and any sepsis inside the joint may remain localised for a considerable time, granted that the exudation

poured out has a free exit. It is largely in consequence of these two characteristics that joint lesions are now regarded as of much less surgical importance than was thought to be the case several years ago, granted that the wound is efficiently treated within a reasonable time of its infliction."—"Gunshot Wounds of Joints," J. Campbell, *Lancet*, Oct. 9, 1918.

"Dressings should be changed as infrequently as possible, for two reasons: (1) the risk of movement, and (2) the risk of fresh infection from without. This latter is a matter of prime importance where it has been impossible to close the joint cavity and sew up the wound. For these cases it seems best to use Bip paste in preference to any other method of wound treatment, even the Carrel Dakin one."—*Idem*. "The value of Morrison's Bip paste in wound treatment would appear to be completely established,"—*Idem*.

*General remarks.* There are three principal methods of treating infected wounds at the present time, each having its champions and followers. Each of them seems to be specially adapted to fulfil certain requirements, and they may be generally indicated by the terms "Wrightism," "Carrelism," and "Morrisonism," and they are all outgrowths of the older "Listerism."

#### WRIGHTISM.

Sir Almroth Wright and his followers maintain that diminution of sepsis and healing of wounds can be most readily attained not by the application of bactericidal substances from without, but rather by utilising the bactericidal bodies normally circulating in the blood and lymph. They say that aerobic and anaerobic organisms are present in the nooks and crannies of wounds, in positions quite inaccessible to any antiseptic solution applied from without, but readily destroyed if sufficient bactericidal bodies can be brought into contact with the same by the lymph stream. In other words, "lymph lavage" is the all-important factor in the treatment of septic wounds. It is the physiological system, and has also been termed the "concentrated saline school." It involves more or less continuous irrigations with so-called hypertonic or salt solutions. Free drainage and hot fomentations are important parts of the treatment; and it involves a good deal of attention. In some cases it produces excellent results in veterinary surgery. There is one phrase used by Wright to which attention may be directed, and it refers to "lymph-bound" wounds. We all know the tendency in some horses for their legs to swell when standing in a stall, and any wounds existing in such cases may then become, in Wright's words, "lymph-bound." A wound may get into such a condition apart from the presence of bacteria. Such limbs are bad healers, and favour cellulitis, as is the case in the presence of all stagnant lymph. We thus explain the benefit of exercise and "physic" in certain wounds in the horse. The late William Hunting paid some attention to the condition in a paper on "Swelled Legs."

Wright's work has been of considerable value in

pointing out the importance of good lymph circulation in wound repair, and it has many applications in practice.

One of our earliest remembrances is that of seeing wounds washed with salt and water; we also once saw a horse that had been down and cut his knee, being taken into the sea for a swim; and we have been told that this form of bath was not infrequently carried out in the middle of the last century.

#### CARELLISM.

The new antiseptic school is to-day focussed in the hypo-chlorite group, of which Dakin's solution and "Eusol" (Lorrain Smith) are the types of fluid used in flushing wounds. Carell is the high-priest of the method, and holds that if sepsis occurs or continues in any wound it is the fault of the surgeon. The wounds are continually flushed, and where this is impossible the flushing is carried out at two-hourly intervals night and day; the septic material is carried away and a sterilisation of the tissues obtained. Carell's tube treatment is very popular, and shares with Morrison's paste the largest amount of patronage amongst the various methods of wound treatment at the present day. It seems most suitable for hospital cases as it involves a good deal of attention. There is a very good paper on the subject in the *Veterinary Journal* for April, 1918, by Captain E. S. W. Peatt, A.V.C. The hypo-chlorites are very powerful disinfectants and yet do not irritate the tissues. The technique is one the ordinary farm attendant will fail to carry out as a rule, and disappointment will consequently follow; one of our knee cases went wrong in this way, and septic arthritis resulted. These fluids are, however, of great use in many cases, such as foul, sloughing wounds, and they are cheap and easily prepared. Youatt frequently advised the used of chloride of lime. As showing the difficulty of sterilising an infected wound it has been found that actively multiplying germs may be present on the surface of such a wound within thirty minutes of the application thereon of tincture of iodine or peroxide; the organisms coming up from the deeper layers.

#### MORRISONISM.

The "Dépôt action" of antiseptics has been used more or less in wound treatment for many years. Lister's double cyanide was placed in wounds by some surgeons, while others used iodoform, the object being to obtain a slow and continuous generation of antiseptic in the wound which will ultimately lead to a local sterility, or, so inhibit the growth of organisms therein that they are rendered harmless. The method involves (or should) infrequent dressings, and a minimum disturbance of the patient with a corresponding saving of labour. Moreover, the danger of re-infection of the wound—always present with frequent dressing—is greatly lessened, and it is the latter point which assumes such an important aspect in veterinary surgery, especially in large farming districts where the patients are often far afield. A system of treat-

ment then, where a surgeon can dress the wounds how and when he pleases, and wherein a day up or down, in removing the dressings or inspecting the wound matters little in the ultimate result, must necessarily possess many attractions, and of all the substances so far used none has given such good results as the Bismuth Iodoform Paraffin Paste, as introduced by Morrison.

#### OBSERVATIONS ON JOINT-ILL PROPHYLAXIS.

Much has been said and written of late concerning this equine malady, and veterinary practitioners as well as breeders throughout the country welcomed the news that a Committee of Investigation had at last been appointed to ascertain, if possible, the specific cause and a remedy. Practising as I do in a district in Scotland where a large number of valuable Clydesdale foals are bred every year, I encounter a great many cases each season.

At the outset I have to admit that I have been grievously disappointed with my results in the treatment of joint-ill. I have tried all the time-honoured therapeutic agents—internal and external, but my results in a large percentage of cases were far from encouraging. This season I decided to take up a preventive line of treatment on a large scale.

In our present stage of investigation diversity of opinion still exists as to whether joint-ill is entirely pre-natal or post-natal. Without favouring either theory in its entirety, I decided to treat the mare during pregnancy, and the offspring immediately after birth.

In the early spring of this season Messrs. Parke, Davis & Co. kindly offered to place at my disposal an unlimited supply of their Polyvalent Antistreptococcic Serum for the prophylactic treatment. 14 c.c. of the serum was injected hypodermically into each mare in the usual fashion on or about the tenth day before the expected date of foaling, and 14 c.c. was injected on the third day before foaling. 7 c.c. was injected to the foal 24 to 48 hours after birth.

Sixty in-foal mares were similarly treated with the Polyvalent serum, and during the whole season not a single case of joint-ill was observed in the foals of the injected mares. Seventeen of those mares had foals showing joint-ill on one or other of the two previous seasons.

As I was unable to undertake all the work, a large number of the mares in the district were not injected, and in four of these cases the offspring developed joint-ill which proved fatal.

The mares received no special treatment and were foaled in the usual foaling boxes. As is my usual practice, the umbilical cord was painted with Tr. iodi.

It was advised to inject the foal on the eighth day after birth, but I considered it more rational to treat the foal as soon after birth as was possible.

In one well-known Clydesdale stud we managed to secure sixteen fine foals from sixteen mares—

three or four cases of joint-ill had been usually encountered here each season.

A fact which struck me in every case, and which appears to me to be very significant, was that every mare carried her foal a fortnight, and in many cases three weeks past her actual foaling period. The foals were born strong, with a thick coating of hair, and in most cases the umbilical cord ruptured naturally and did not require to be ligatured.

Eight different stallions were the sires of the foals; and in this connection I would say that two seasons ago a well-known stallion travelled in the district which had been affected with pink-eye the previous winter. Although all the mares which he served showed typical equine influenza symptoms shortly after service, the mares produced healthy foals, and in no case was joint-ill seen as a result. This, I think, is also of some little note, as it has been asserted by some authorities that joint-ill symptoms and cases of fistulous withers have been frequently observed in the progeny of mares which have suffered from strangles and influenza.

With regard to the increased length of pregnancy which was observed in the cases of the mares injected with the Polyvalent serum;—Have we reason to believe that by the injection of a passive immuniser of the nature of Polyvalent Antistreptococcic Serum during the last stages of pregnancy we can increase the length of pregnancy? The fact seems significant and appears to me worthy of further study.

Possibly others who have used this prophylactic might be interested and may have had results similar to those which I relate.

W. WALLACE PEGGIE. M.R.C.V.S.

Biggar.

#### BACTERIAL INFECTION OF WOUNDS IN FRANCE.

The article under this heading in *The Veterinary Record* of 19th October, deals with a disease not hitherto noted in your columns, but one which has caused a good deal of speculation as to its origin. The indirect cause is a bite on the neck, but in many cases even an abrasion is absent; a soft swelling containing a liquid suddenly appears.

When I first met this condition I had no hesitation in making a bold incision at the lowest part of the swelling, which allowed the yellowish serous fluid to escape, but after finding that the fibrous tumour was usually the result I proceeded with more caution, and unless the swelling was large advised leaving it alone to see if absorption would take place. This does take place with the smaller swellings. More frequently the fluid increases until the swelling extends from four inches in front of the point of the shoulder to near the crest. Something has to be done then, and reluctantly the knife and skin are sterilised and a good incision made. I have removed in this way several pints of yellowish serum containing what I consider to be a large amount of fibrin. I always irrigate the sac with saline solution, and ensure that all fibrin

has been removed. All my cases have been with a unit in the field, and I have therefore had no opportunity of submitting any material to microscopic examination.

After incision and irrigation I plug the wound with sterilised wool. The irrigation and dressing is carried out twice daily. I have had some success in this way but the failures, as Capt. Kirk states, are many, and the tumour as described forms round the incision in a few days. I consider there is an advantage to be gained by allowing the fluid to escape, and if the tumour does form allow it to become circumscribed, and then remove it along with the overlying skin, taking  $\frac{1}{2}$  in. of the healthy skin all round. The underlying tissue has the same rough appearance as found in a case of blackleg.

Further treatment consists of keeping the surrounding skin clean and free from discharge, and application of a dry dressing of Pulv. alum and Pulv. ac. boric in equal parts.

I have had no recurrence of the tumour after operation.

The same serous abscess is often found on the hip due to a kick, but strange to say I have never observed the formation of a tumour after the removal of the fluid.

J. F. TAYLOR, Capt. A.V.C.

B.E.F., Oct. 28.

#### THE VETERINARY TRIBUNAL.

A meeting of the Veterinary Tribunal was held at 10 Red Lion Square, London, W.C. 1, on November 8th.

Present:—Mr F. W. Garnett, in the Chair; Messrs. H. Begg, J. Clarkson; Sir John M'Fadyean; Messrs. W. J. Mulvey, J. Willett.

*Minutes.* The minutes of the previous meeting were read and confirmed.

*Reports.* The CHAIRMAN read the following letter from the Ministry of National Service:—

R.3/Stud/9.

1st November, 1918.

Sir,—I am instructed by the Minister of National Service to refer to the question of the protection from Military Service and the release from the Army of Veterinary Students, and to inform you that it has been decided to protect from Military Service all Veterinary Students whose names appeared on the books of their respective colleges on the 22nd of October, 1918, so long as they continue satisfactorily to pursue their studies, but that all future students will only be protected if placed in Grade 3 on attaining military age.

With regard to Veterinary Students now serving in the Army, the Minister will be prepared to recommend to the War Office the release of such students as were in their third or fourth years of study at the date of their enlistment.

The names of third and fourth year students now serving in the Army whose release is desired should be forwarded to the Secretary (L2) at this Ministry, together with particulars of their Regimental numbers, and present stations. This Department is already in possession of the necessary particulars regarding the students who are still in civil life, and the necessary instructions for their protection will be issued, but I am to request that you will from time to time notify this department of any Grade 3 students entering the Veterinary Colleges in Great Britain subsequently to the 22nd of October, 1918. Such communications should be

addressed to the Secretary (R.3) Ministry of National Service.—I am, Sir, your obedient Servant,  
(Signed) H. N. BOYD.

It was resolved: That the matter be left in the hands of the Chairman to deal with, and that letters be written to the four Colleges for the information required by the Ministry of National Service.

The following cases were dealt with:—

MEIKLE, C. E. J., Sunderland. Age 32. Grade I. Married. N.S.R.'s application dismissed. That he be not called upon to join Volunteer Training Corps.

BUTTERS, E. L., Liverpool. Age 32. Grade II. Single. N.S.R.'s application dismissed. Temporary exemption for six months allowed, to May 9, 1919. That he be not called upon to join V.T.C.

MASSON, C., Torquay. Age 29. Grade II. Married. N.S.R.'s application dismissed. Temporary exemption for six months allowed, to May 9th, 1919. That he be not called upon to join V.T.C.

McGHEE, Thos., Tattenhall. Age 44. Grade II. Married. Man's application refused. Not to be called up till 9th December, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

WILSON, Thomas, Nantwich. Age 32. Grade I. Single. N.S.R.'s application dismissed. That he be not called upon to join V.T.C.

ELDER, A. G., Tewkesbury. Age 47. Grade 2 B2. Married. Man's application allowed. Temporary exemption for six months, till May 9, 1919. That he be not called upon to join V.T.C.

PRINCE, F. T., Ashborne. Age 35. Category A. Married. Man's application allowed. Temporary exemption for three months, till Feb. 9, 1919. That he be not called upon to join V.T.C.

FURNESS, G. J., Alfreton. Age 50. Grade II. Married. Man's application allowed. Temporary exemption for six months, till May 9, 1919. That he be not called upon to join V.T.C.

WATSON, W. R., Thornbury. Age 35. Category A. Married. N.S.R.'s application allowed. Not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

BISHOP, G. H., Bristol. Age 50. Married. Man's application allowed. Temporary exemption for six months, to May 9, 1919. That he be not called upon to join V.T.C.

LYDFORD, T. R., Somerset. Age 33. Grade I. Married. N.S.R.'s application allowed. Man not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again. Leave to appeal to Central Tribunal refused.

WHITE, W., Birmingham. Age 34. Grade II. Married. Man's application allowed. Six months temporary exemption, till May 9, 1919. That he be not called upon to join V.T.C.

WARD, J. D. C., Hinckley. Age 42. Grade I. Married. Man's application dismissed. Not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

HODDINOTT, D. R., Evesham. Age 30. Grade I. Married. N.S.R.'s application allowed. Man not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

FINDLAY, A. W., Warwick. Age 43. Grade II. Married. Man's application dismissed. Not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

SMITH, S., Horsham. Age 29. Grade III. Married. Man's application allowed. Temporary exemption granted for six months, to May 9, 1919. That he be not called upon to join V.T.C.

Hawson, F., Royston. This case was adjourned till

next meeting, as applicant was unable to attend owing to illness.

PINCHING, R. H., Horsham. Age 41. Grade II. Married. Man's appeal dismissed. Not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

DIER, J. B., E. Grinstead. Age 51. Grade 2 B2. Married. Man's application allowed. Temporary exemption for six months, till May 9, 1919, allowed. That he be not called upon to join V.T.C.

STINSON, O., Marden. Age 32. Grade I. Married. N.S.R.'s application allowed. Not to be called up till Dec. 9, 1918. If not offered a Commission in A.V.C., leave is granted to appeal again.

ANDREW, H., London. Age 33. Grade B1. Single. N.S.R.'s application dismissed. Temporary exemption for six months allowed, till May 9, 1919. That he be not called upon to join V.T.C.

At a meeting of the Veterinary Tribunal (Scottish Panel), held at the Royal (Dick) Veterinary College, Edinburgh, on the 25th October.

Present: Mr. F. W. Garnett, in the Chair; Dr. O. C. Bradley; Messrs. H. Begg, J. Clarkson, W. J. Mulvey, J. Willett, P. Wilson, W. Wilson, W. Woods (N.S.R.), were in attendance.

Minutes. The minutes of the previous meeting were read and confirmed.

The following cases were dealt with:—

SCADE, G. M., Galston. Age 35. Grade I. Man's application dismissed. Not to be called up till Nov. 25, 1918. If not offered a commission in the A.V.C., leave is granted to appeal again.

MEIKLE, P., Strathavan. Age 37. Grade I. N.S.R.'s appeal allowed. Not to be called up until Nov. 25, 1918. If not offered a commission in the A.V.C., leave is granted to appeal again.

CAMPBELL, W. W., Girvan. Age 36. Grade I. Man's appeal allowed. Temporary exemption granted, to Feb. 1, 1919. That he be not called upon to join V.T.C.

TAYLOR, D. A., Beith. Age 36. Grade II. N.S.R.'s appeal dismissed. Temporary exemption granted to May 1, 1919. That he be not called upon to join V.T.C.

GIBSON, J., Dundee. Age 32. Grade II. N.S.R.'s appeal dismissed. Temporary exemption till May 1, 1919. That he be not called upon to join V.T.C.

FERGUSON, W. M., Dundee. Age 40. Grade I. Man's appeal allowed. Temporary exemption granted to May 1, 1919. That he be not called upon to join V.T.C.

PEGGIE, W. W., Biggar. Age 27. Grade I. N.S.R.'s appeal allowed. Not to be called up till Nov. 25, 1918. If not offered a commission in the A.V.C., leave is granted to appeal again.

MATHESON, D. C., Edinburgh. Age 37. Grade III. N.S.R. agrees to temporary exemption to May 1, 1919. That he be not called upon to join V.T.C.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

L. J. Blenkinsop, Maj.-Gen. A.V.S.	£5	0	0
James Brown, Stirling	1	1	0
A. Cornish Bowden, Beckenham	1	1	0
C. E. Perry, Bristol	1	1	0

Previously acknowledged 1077 7 11

£1086 10 11

**ARMY VETERINARY SERVICE****Extracts from London Gazette,****WAR OFFICE, WHITEHALL, Nov. 8.****REGULAR FORCES. ARMY VETERINARY CORPS.**

Capt. J. M. Richardson, M.C. (T.F.), relinquishes the actg. rank of Maj. (Oct. 21).

Nov. 9.

Temp. Lt. to be temp. Capt. :—G. H. Melck (Oct. 25).

Nov. 11.

Temp. Qrmr. and Lt. R. H. Jameson to be Capt. under Art. 330, R. Wt. for pay and promotion (Oct. 17).

Nov. 14.

Temp. Maj T. C. Evans, M.C., Can. A.V.C., to be Dep. Asst. Dir. of Vety. Servs., and to be actg. Lt.-Col. whilst so empld. (Oct. 11).

**TERRITORIAL FORCE, ARMY VETERINARY CORPS.**

Nov. 8.

Capt. T. Eastwood relinquishes his commn. on acct. of ill-health, and is granted the hon. rank of Capt. (Oct. 7, 1916) (substituted for that which appeared in *Gaz.* of Oct. 6, 1916).

Nov. 11.

Capt. (actg. Maj.) R. W. Williams relinquishes the actg. rank of Maj. on ceasing to be employed as A.D.V.S. (Oct. 3).

**The following casualty is reported :—****DIED—Capt. A. A. Higgins.****Bull with bad feet.—Prosecution fails.**

At the Elham Petty Sessions at Seabrook, on Thursday, 7th inst., before Mr. E. Garnet Man and other magistrates, Alfred Constable, farmer, of Capel-le-Ferne, and Alfred Constable, jun., were summoned for cruelty to a bull.

Mr. G. W. Haines prosecuted on behalf of the Royal Society for the Prevention of Cruelty to Animals, and Mr. Rutley Mowll, of Dover, defended.

John Wise, 6 Park Road, Cheriton, stated that he had been an omnibus driver for nearly twenty years, and although he knew something about horses, he knew nothing about other cattle. On the 14th October he was driving a bus along the Cheriton Road, when two passengers called his attention to a bull standing against a wall opposite Mount's Nursery. The animal had a ring in the nose, and the younger defendant was endeavouring to pull it off the footpath, by means of the rope, while the elder defendant was trying to push it along. Witness proceeded to Cheriton, and on his return he saw the bull standing against a fence at Morehall. On going back to Cheriton he saw the horse lying on a heap of shingle at the end of Quedsted Road. It appeared to him to be in a distressed condition. He later saw it at Julian Road, Folkestone, lying on the roadway, and he also saw it walking as if in a distressed condition. Cross-examined : When he saw the bull at Quedsted Road, a drove of cows came along, and the bull got up and walked away with them.

Inspector Rodwell, R.S.P.C.A., stated that he saw the bull lying on a heap of stones at Cheriton. It was distressed, had its mouth wide open, and its breathing was short and sharp. There was some blood on the nose. Owing to the way in which the bull was lying he could not examine the feet, except the off fore one, which was very hot. The younger defendant was standing alongside the bull, and witness stood by from three till four

o'clock, when he then asked the man to allow the animal to remain while he rang up a veterinary surgeon and procured the float. The float was provided by the Society and no charge was made for its use, but where a person had a horse it was expected that it would be provided for drawing it. He returned in about an hour and found that the animal had been removed. He got on a bus and overtook the bull by Radnor Park. It was still distressed, but the breathing was more normal. On the arrival of the float the bull was taken to a slaughter house, and was killed on the following day. He was present, and showed the carcass to Mr. Eve, veterinary surgeon. He was also present at the post-mortem, and found that the bull had been suffering from founder, and the lobes of the lungs were somewhat discoloured. He had no hesitation in stating that the animal had been suffering, and he told the defendant not to have it removed until the float came. Cross-examined : The bull was bodily in good condition, but he could not state its weight. Under the Food Order, a bull had to go to the market to be weighed and graded.

Mr. H. B. Eve, M.R.C.V.S., stated that he saw the bull lying on the pavement outside Radnor Park. It was "blowing," which was quite a common complaint, and it was suffering from founder of the feet and from collapse. On the following day he saw the carcass at the slaughter-house. It was an extremely good carcass for war time. He found slight congestion of the lungs. The distressed breathing he had noticed had only been caused by exertion. Cross-examined : He was quite satisfied that the condition of the bull was due to exhaustion, and it was quite natural that when a drove of cows came along from the market that the animal should rise and walk with them. It was in splendid condition.

When cows and horse were really tired out they had different ways of resting. A cow would lie down. This animal was a good bred shorthorned bull, about a year and ten months or two years old. There was no deformity about the feet, but it was just suffering from a temporary attack of founder. By the Chairman : In his opinion the bull was all right when it left the farm. It was a stall-fed bull, kept for stud purposes, and the journey from Capel to Cheriton was too much for it. It was suffering just from a temporary attack of fever in the feet.

Mr. Mowll said the bull, which was kept for stud purposes, was travelled carefully as far as the Blackbull Road Schools at Folkestone, where the children seemed to have first of all excited it. This animal was "a gentleman which had been accustomed to a sedentary life," and was not accustomed to running on hard roads. Mr. Constable, sen., had gone on to the market where the bull was to be graded, and the graders, one of whom was Mr. Hann, of Folkestone, a well-known farmer and butcher, suggested that as some other animals were going towards Folkestone, possibly the bull would get up from where it was seen lying by the Inspector and follow them. That was exactly what did happen. The weighers and graders under the Food and Control Order had the animal weighed and graded. The weight was 11 cwt., and it was placed in category 2, the Government price being £42—not at all a bad record for an animal said to have been badly used. There was no cruelty, and no reasonable being could think that the defendants could have prevented the bull from rising and following the passing drove of cattle.

The case was dismissed.—*Folkestone Herald.*

**Personal.**

**CAREY—ROBINSON.** On the 31st Oct., at the English Church, Havre, Peter Dudley Carey, Major A.V.C., only son of the late Peter Francis Carey and Mrs. Carey, Guernsey, to Dorothy Madelaine, youngest child of the late J. H. Robinson and Mrs. Robinson, of 14 Park Road, Richmond, Surrey.

### Prevention of Anthrax.

The Departmental Committee appointed in 1913 to inquire into precautions for preventing danger of infection from anthrax in the manipulation of wool, goat hair, and camel hair, have issued their report as a White Paper. One of their most important recommendations is the abandonment of the attempt to control anthrax by regulations as being totally inadequate to cope with the danger. They state that the simplest, cheapest, and most effective method of preventing anthrax in the wool trade is by disinfection of wool and hair abroad. It is recommended that the British Government should establish the disinfection authority, and should then take steps to obtain the co-operation of the Governments of all organised countries.

### Action of Permanganate on Morphine.

Morphine is rapidly oxidised by potassium permanganate. It has been found that when a solution of 0.5 gm. of permanganate is added to a solution of 1 gm. of morphine hydrochloride, instantaneous reaction takes place, the colour of the liquid changing to mahogany-brown, while manganese dioxide is precipitated, nearly all the morphine being converted into pseudomorphine. With increasing quantities of the permanganate, oxidation continues, the colour of the liquid gradually changing to straw-yellow, while the newly-formed pseudomorphine disappears and alkali oxalate is found in solution. The reaction is expressed thus:— $2C_{17}H_{19}NO_3 + O = (C_{17}H_{18}NO_3)_2 + H_2O$ . The product is oxydi-

morphine (or pseudomorphine), which is much less active as a narcotic than is morphine. Some of the pharmacologists simply say that "the morphine is oxidised and is rendered inert."—*Pharm. Jnl.*

### Eau de Javelle for disinfecting wounds.

It is claimed that a dilution of 15 gm. of commercial Eau de Javelle to one litre with water furnishes a liquid disinfectant which is superior to Dakin's solution as a surgical disinfectant irrigant. It is worthy of more general use in the treatment of wounds, being less irritant and more actively bactericidal than Dakin's fluid. The authors consider the latter to be too strong in sodium hypochlorite, rendering its action distinctly irritating. The commercial Eau de Javelle used in their experiments contained 2.7163 per cent. of available chlorine and 2.37 per cent. of soda (*sic*). [In normal times, Eau de Javelle is a solution of chlorinated *potash* containing 3 per cent. of available chlorine.]—Cazon and Krongold (*Comptes rend.*, 1917, 165, 569, *ex Pharm. Jnl.*).

### OBITUARY.

ARTHUR AKIN HIGGINS, Greenhill, Harrow,  
T./Capt. A.V.C. Graduated, Edin: May, 1910.

PAGE BULL.—Killed in action, on Oct. 30, Ronald Page Bull, 2nd Lieut. Northamptonshire Regt., the dearly loved and only son of Mr. and Mrs. R. Page Bull, of Deddington, Oxford; aged 19½ years.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
		Cases Confrmd												
		Dogs	Other Anmls	Out-breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.			
													(a)	(a)
Gr. BRITAIN.														
Week ended Nov. 9		2		5	6					39	72	4	27	33
Corresponding week in	1917			7	7					33	45	6	20	8
	1916			10	12					15	23	5	63	37
	1915			17	17	11	161	1	3	12	18	3	68	238
Total for 45 weeks, 1918		56	2	211	243	3	14	27	76	3802	7142	274	1231	510
Corresponding period in	1917			375	426			23	48	2099	3954	431	1926	929
	1916			463	548	1	24	44	112	1846	4115	210	3866	8947
	1915			494	559	31	395	42	76	†703	†1531	169	3518	15175

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Nov. 12, 1918

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

### IRELAND.

IRELAND.			Week ended NOV. 2					Outbreaks					
			...	...	...	...	...	...	1	6	1	9	
Corresponding Week in	}	1917	...	...	...	...	...	...	...	9	1	5	
		1916	...	...	...	...	...	...	16	3	19		
		1915	...	...	...	...	...	...	2	6	3	40	
Total for 44 weeks, 1918			2	2	...	...	...	...	93	262	25	85	
Corresponding period in	}	1917	...	3	5	...	...	1	1	41	332	192	1112
		1916	...	3	7	...	...	...	...	58	366	277	1599
		1915	...	1	1	...	...	1	3	64	346	219	1259

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Nov. 4, 1918  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1585.

NOVEMBER 23, 1918.

VOL. XXXI.

## THE RETURN TO CIVIL LIFE.

Recent events seem to indicate that we may soon expect the beginning of demobilisation, and the gradual return to civil life of the majority of the thousand odd members of the profession who have been away on active service. It will be no light matter to arrange the resettlement of these members in civil life. How many of them will have practices to which to return, and how many will have no practice to return to? It may be said that practically none of the young men who have graduated since June, 1914, have seen much of civil practice. Some method of introducing them to suitable posts, as and when demobilised, will need to be devised; and some means provided to help those members who having left a practice find on their return it has gone. The Council of the Royal College of Veterinary Surgeons has its representative on the Committee set up by the Ministry of Labour to deal with the resettlement of officers, and it may be hoped that a workable scheme will be evolved in due time.

But cut and dried schemes are one thing, and the carrying out of them another. Practically everything will depend on the sympathetic co-operation of those members who have not been called upon to leave their practices. In many cases friendly arrangements have been entered into for the practice of a member on active service to be carried on by his neighbours until his return. These members will shortly be coming home, and the reckoning will call for much forbearance and unselfishness on both sides. Generous treatment is at least due to the man who has had to leave all, and don khaki. No doubt it will be difficult in some cases to hand over clients when a man has been away for a length of time. Some clients will not want to go back to their former veterinary surgeon, and obviously cannot be compelled to do so. We have confidence that the majority of those at home who have been acting for an absent member will crown the good work they have been doing for so long by intimating to all old clients that they *must* now go back to the returning member. Some, unfortunately, will be returning in far poorer health than when they left. These especially deserve every man's sympathy and help. It is to be hoped that the profession at home will think of these things, and be generous.

## \* BACILLARY NECROSIS IN THE HORSE.

By Capt. GEORGE HOWIE, Remount Depot,  
Aurangabad, Deccan.

Mr. President and Gentlemen,—My father, in one of his letters, asked me if I could write a paper for one of your meetings as I might have encountered cases in India which might be of interest to the members.

As very little has been written concerning the disease commonly called Contagious Necrosis, I hope it may interest you to hear about my experience with this troublesome disease.

7th June, 1918.

**Bacteriology.** Not being a bacteriologist, and having very few facilities for the thorough examination of smears, I am not in a position to say much regarding the causal organisms giving rise to the disease, but judging from one or two experiments I made the disease is caused by *Bacillus Necrophora*. I have found *B. Necrophora* on taking smears from lesions and examining them microscopically. I also succeeded in demonstrating the organism by inoculating a hare subcutaneously with a small quantity of the discharge obtained from one of my cases. The discharge was mixed with about an equal quantity of normal saline and injected subcutaneously in the abdominal region of a young hare. Five days after the inoculation the hare died. There were no local lesions; but lesions were found in the liver, which, on examination by the Imperial Bacteriologist, Muktesar, proved to be *B. Necrophora*.

*B. Necrophora* is undoubtedly the chief causal organism, though other agents assist in the progress of the disease, such as *Streptococci* and *Staphylococci*. Wet standings and insanitary conditions are the chief predisposing causes; this is evidenced by the fact that the disease is worst in the monsoon season.

I have noticed that horses' skins become extremely non-resistant to disease in the monsoon season, the slightest wound being very difficult to heal.

**Symptoms.** These are extremely varied, varying with the extent and position of the wound, and probably also with the virulence of the causal organism.

The commonest symptoms are: Pain, affected parts hot, extremely sensitive to palpation, and

\* Read at the meeting of the North of Scotland V.M.S., Aberdeen, Aug. 29. (V.R., Nov. 2, p. 148).

swollen; if a wound be present—and there is almost always a wound—it is unhealthy in appearance and usually shows a discharge of pus. The temperature is usually elevated, I have seen it as high as 107°; pulse and respiration accelerated; animal off his feed; and the mucous membrane injected. If the infected wound be near the foot the animal is always lame.

During 1917, from about the end of May to the end of September, I treated, I should think, from 200 to 300 horses suffering from necrosis. To assist in the treatment I divided the cases provisionally into three classes according to the severity of the infection, this division also helps in describing the different symptoms encountered.

Class I (I called) Simple Necrosis; Class II, Suppurating and Sloughing Necrosis; Class III, Suppuration without sloughing.

*Simple necrosis.* These cases were usually quite easily dealt with, and were discharged in a few days. The seat of the disease was usually the bulbs of the heels, and mostly on the hind feet.

There was usually no actual wound—only a slight abrasion. The part was denuded of hair, reddish-yellow in colour, and a yellowish glairy pus could be seen oozing through the surface of the abrasion.

The horse usually showed slight symptoms of lameness but very little pain on palpation, and after applying suitable dressings and keeping the parts clean for a few days, the abrasion soon dried up. (Photo. 1).

*Suppurating and sloughing necrosis.* This is a much more severe form of the disease. A horse is brought into hospital suffering from a rope gall, over-reach, or ordinary wound which may be situated anywhere on the body, though the legs are most often affected, as they are more likely to come into contact with the organism.

The wound when examined is found to be a raw unhealthy sore, discharging an evil-smelling sulphur-yellow pus—a sinus is very rarely found, the pus appears simply to ooze through the surface of the granulations which usually cover the surface of the wound. If the infected wound be in the vicinity of the foot the animal is invariably lame; the leg may be hot and painful and is usually swollen.

If the wounds have been neglected for some time before receiving proper attention the animal may show very serious symptoms. It is usually "dead lame," the wounds are covered by unhealthy purple granulations, discharging an evil-smelling pus tinged with blood. If the wounds are in the region of the coronary band the bands are swollen, cedematous, and yellowish in colour, there is also very often separation between the hoof and coronary band. The leg is hot, extremely painful, the animal is dull, "off feed," and the temperature may be anything up to 107°, though it is usually not much above 105°; pulse up to 60; mucous membranes injected. In one case symptoms of pleurisy were present. If the progress of the disease is not arrested the animal becomes rapidly worse, the sores enlarge, and the discharge of pus increases.

When a slough is to take place a line of demarcation is seen near the margin of the wound, usually distinguishable by being slightly darker in colour than the surrounding tissues. The sloughing process is hastened as much as possible and the slough when ready is removed surgically.

In most cases when the slough took place the severity of the symptoms abated, the flow of pus decreased, and healing was fairly rapid. (Photos. 2, 3).

In two cases, when the wound was in the vicinity of the hoof, sloughing of the hoof had commenced before sloughing of the wound took place, and the animals had to be destroyed.

*Suppuration without sloughing.* In most cases the primary symptoms were much the same as those described in Class II, but one or two cases, although undoubtedly "Necrosis," differed from other cases. The following is the history of one unusual case,

The horse was admitted to hospital on October 16th, 1917, and was found to be lame near hind. No sign of the slightest wound could be seen anywhere, in the region of the foot only a slight tenderness was shown below and anterior to the fetlock joint.

On the following day there was still no sign of anything beyond a slight swelling on the above mentioned spot.

During the night of the 18th, what seemed to be a deep abscess had burst below the fetlock and a copious discharge of the usual sulphur-coloured pus was coming from the opening.

On the following day two more openings had appeared, but after applying dressings for four days the discharge ceased and the wounds commenced to heal.

Six days later, on the 28th, a fresh lesion appeared at the back of the fetlock joint, and the following day two more lesions on the pastern, posterior to the original lesion. (Photo. 4).

The discharge had again ceased on the 2nd November, and the horse was fit for discharge on the 12th. The case had all the aspects of "Necrosis," but no sloughing took place, and the absence of a wound on admission makes it unusual. I give the case in full to show that it is apparently not necessary for a wound to be present to enable invasion by the causal organism to take place.

Luckily I encountered only a very few cases in this class—about 20 in all; four of these had to be destroyed as the progress of the disease was very rapid.

The serious cases were mostly due to neglect before admission, but one case in particular was not due to this cause, and I think it is worthy of mention to show the rapid progress of the disease.

This case was admitted suffering from a wound above the coronary band on the outside of the near fore. The wound was bluish-grey in colour, not painful, with the usual moist appearance due to the oozing out of the pus. No very marked lameness was present.

Next day the lesion had enlarged, discharge of pus had increased, and the bluish granulations had

assumed a dark chocolate-coloured appearance. The region near the coronary band was swollen and painful; the coronary band itself was bright yellow, and a slight separation was visible between it and the hoof.

On the third day the lesion had enlarged and was more unhealthy in appearance, and the odour of the discharge was almost overpowering; also the hoof had commenced to slough. The temperature was 106°, pulse and respiration accelerated, animal dull, off feed, and in great pain. The leg was swollen to almost three times its size as far as the elbow.

The animal had to be shot on the fourth day, as the hoof had almost sloughed off, and all the tissues above the hoof were diseased. The horse was almost mad with pain before he was destroyed. All these symptoms occurred in four days, and the progress of the disease could not be arrested although dressings were applied every two or three hours.

I would like to discuss one more case which showed unusual symptoms, because I have photograph of it. This case was admitted on the 7th October suffering from a necrotic wound on the off hind pastern, evidently caused by a shackle. The wound had been neglected, and in consequence the symptoms were fairly severe; temperature raised, leg swollen and painful, copious flow of pus, etc.

After cleansing the wound, poultices were applied continuously up to 13th October, when "Eusol" and "Eupad" were commenced. The discharge ceased on the 16th, and no slough took place. The wound healed rapidly and the animal appeared practically fit to be discharged on the 22nd Oct.

During the night of the 24th the leg commenced to swell, and in the morning it looked as it were a case of lymphangitis. The animal was very lame and the leg hot and painful, but no pain was shown on palpation of the lymph glands.

An attempt was made to foment the leg, but being a remount he would not stand still, so the only alternative was to apply flannel bandages round the leg and keep them moist with hot water.

The leg had not decreased in size next day, and numerous small sores, about the size of split peas, were visible on the inner surface of the leg extending from the hock almost to the fetlock; discharging a thin serous fluid which coagulated on the leg.

A wound had also appeared on the anterior surface of the leg just above the fetlock. (Photo. 5). The swelling on the leg had extended also to the sheath and along the abdomen. (Photo. 6). The original wound had also "broken out" again, so I concluded that all these symptoms were due to necrosis. Poultices were again applied, and fomentations continued.

The poultices were discontinued on the 28th, the leg had decreased in size and the eruption on the inner surface of the leg had disappeared, so too had the oedema of the abdomen and prepuce. The patient was discharged a week later.

**Diagnosis.** The diagnosis is always quite simple, except in very unusual cases, such as I

have mentioned. Once one has seen a necrotic wound and the sulphur-coloured pus oozing through the surface of the unhealthy granulations, it could not be mistaken for anything else. A smear taken from the wound almost always shows the bacillus—I used Giemsa's Stain.

The prognosis is favourable except in very severe cases, provided dressing is regularly carried out and strict cleanliness of the affected parts be observed. If the case has been neglected for some time several sequelæ may result. These I will mention later.

**Treatment.** After spending about a month in trying to find a successful method of treatment, I hit upon a very simple, and what I found to be very successful treatment.

Previous to this treatment I tried almost everything in the Pharmacopœia; both externally and internally. Amongst others, I tried soaking the part affected, if near the foot, with solutions of Hydrarg. perchlor. of varying strengths, Salt solution, Eusol, Pot. permang., Iodine, Carbolic acid, Zinc chloride, Pot. permang. crystals, and bran poultices. I gave Arsenic, Pot. Iod., Hyd. Biniod. Rub., and Quinine internally, I also tried Eusol and weak solutions of Carbolic acid intravenously, but got no marked results.

I at last tried Eusol and Eupad treatment, and got good results. It struck me that if Eusol was a good dressing for infected wounds, so might the sediment left over after the Eusol was filtered off—this sediment I called Eupad.

The dressing is easily made and inexpensive—which is a big item in these times. I had usually two Winchester quarts of the solution made at the time. For this I required 3 oz. Boric acid and 3 oz. Chloride of lime, which was mixed together, put into the Winchester and water added to fill the bottles—the mixture well shaken and left overnight. In the morning it was filtered and the sediment collected.

The different classes were treated somewhat differently.

**Treatment for Class I.** On admission the wounds were cleansed thoroughly with soap and water, the wounds being scrubbed with an ordinary nail brush, using as little water as possible. The hair round the wound was then clipped and the wound dried—it was then bathed with Eusol, dried, and smeared with Eupad and a pad of tow and bandage applied.

The wounds usually dried up in 3 or 4 days.

**Treatment of Class II.** After cleansing the wounds with soap, water, and a brush, a linseed poultice was applied if any sign of sloughing was visible. The poultices were applied in elongated bags and renewed every three or four hours.

As soon as a line of demarcation showed I removed the slough surgically, washed the wound with Eusol and applied Eupad, and dry pads and bandages.

The discharge of pus soon ceased after removal of the slough, and the Eupad promoted rapid granulation. As soon as the wound had granulated sufficiently the Eupad was discontinued, the part being kept clean with moist Eusol pads—Boric acid was the only dressing applied. After the

slough had separated the wound invariably healed uninterruptedly.

*Treatment of Class III.* This class being the most severe was the most difficult to treat. There was usually a copious discharge of pus being evacuated from several small openings.

After the part had been cleansed, poultices were applied to promote sloughing if possible, and if not, they served to alleviate the pain and "draw" the pus. The poultices were renewed about every two hours and the wound syringed out with Eusol.

As soon as the discharge of pus had decreased the poultices were discontinued, and Eusol and Eupad applied three times a day, and the wounds protected with hot dry pads and bandages. I very seldom gave medicine internally other than a dose of physic, and Mag. sulph. and Pot. nit. in the drinking water.

The success I obtained from this treatment I put down to the use of non-irritant dressings and keeping the parts affected as dry as possible. Irritant dressings and moisture seem only to aggravate the condition.

*Post-mortem.* Most of the cases examined were very severe (Class III), and in every case the wounds were near the foot.

When the skin was removed the tissues underneath were of a dark chocolate colour infiltrated with pus. In some cases the tissues were gangrenous, as I was able to remove the diseased portions with a teaspoon right into the bone—in one case I was able to scoop out the soft tissue of the foot like an egg.

I found no lesions in the abdominal organs. In old-standing cases there are usually large masses of fibrous thickening round the wound.

*Sequelæ.* The most common sequel to the disease is permanent thickening of the leg, and very often a fibrous thickening in the neighbourhood of the lesion. (Photo. 8).

Another fairly common sequel, especially in cases which have been neglected, is Quittor.

Arthritis is also somewhat common if the wounds be near a joint—most commonly the fetlock joint.

I had also one case where part of the extensor tendons sloughed. I hoped that a small part of the tendon had remained, and succeeded in getting the wound to heal, but the animal was unable to extend his leg, so it had to be destroyed. I forward a photo. of the case, also a photo. of the tendon on post-mortem. The flattened part is fibrous tissue uniting the two ends of the tendon, and is adherent to the bone. (Photo. 7).

Meerut, India, 1917.

#### REFERENCE TO PLATE.

- 1 Simple necrosis: lesions on heels.
- 2 Surface wound, partly healed.
- 3 Large slough on point of hip.
- 4 Suppuration—no wound. Fresh lesions ten days later.
- 5 Fresh lesion, after a previous wound on pastern had healed.
- 6 Same case; swelling showing on sheath and abdomen.
- 7 Fibrous tissue, replacing portion of extensor tendons destroyed by sloughing.
- 8 A permanent thickening.

#### DISCUSSION.

Mr. BROWN, President: We have listened to a very excellent and interesting paper. This bacillary necrosis is commoner in this country than we are aware of. For instance: Foul of the foot in cattle, Foot rot in sheep, so-called Calf diphtheria, and Necrosis of the coronet in horses in winter time are all forms of Bacillary necrosis. I am sure all of you have seen and treated these cases.

Mr. HEPBURN: I have listened to Capt. Howie's paper with very great interest. We meet with bacillary necrosis almost every day, though, perhaps, we do not recognise it. We have it in severe cases of cracked heels in horses. My treatment is on the same lines as Capt. Howie's. The secret is to keep the parts as dry as possible, as moisture is very harmful. I had the same kind of cases to deal with in the South African campaign. I have tried Eusol in fistulous withers but with no good results. I will try Capt. Howie's treatment and methods in future.

Mr. CUMMING: I beg leave to offer my congratulations to Capt. Howie for his very instructive paper. The photographs are also excellent. I haven't seen much of the disease in country practice, though it is common in towns. I approve of dry dressings for cracked heels and such like sores.

Mr. BEATTIE: I have to thank Capt. Howie for his clever and literary paper. The disease in India seems to be confined to the extremities. I have two or three cases of intractable sores on the jaws of horses. I wonder if it is the same disease? I shall try the Eusol and Eupad treatment.

Mr. DRENNAN: I would like to add my thanks to Capt. Howie for his very instructive paper. The disease is common here in winter as a result of tramps, etc. Dry antiseptic treatment I find is best. Tubbing is the worst possible form of treatment.

Mr. ANDERSON: I wish simply to thank Capt. Howie for his paper. I have got quite a lot of useful information out of it.

Mr. BROWN: Capt. Howie is to be congratulated on his exceedingly lucid and well written paper, and on his original and successful treatment of such a stubborn disease. The principle of the treatment is dry, non-irritant application.

On behalf of the Society, I would ask his father to convey to Capt. Howie the thanks and appreciation of the members; and we all hope he will soon be back amongst us again.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### CARDIAC DISEASES IN ARMY HORSES.

The severe labours which horses undergo in this war, coupled with the length of the war, in many cases affect the heart; and therefore cardiac lesions, which were rather rare at the beginning of the war, are now fairly frequent in the horses of all the armies. It is true that even at the beginning of the campaign, especially during advances and movements from one sector of the front to another by long and rapid marches, acute lesions of the myocardium were not lacking, causing speedy death, or necessitating the "casting" of the animals. At the beginning of the war this casting was not difficult, for horses were then fairly plentiful. Now, in view of the scarcity of horses, it is



1

Lesions



2

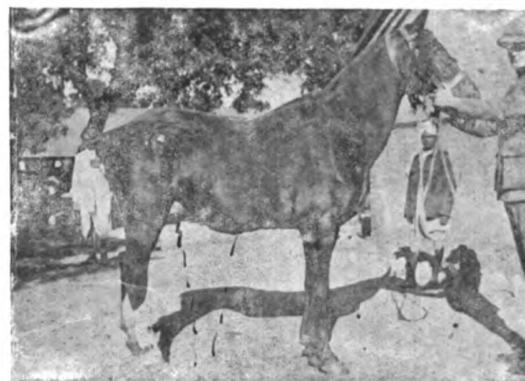
Original. Fresh lesions.



4



3



6

Original. Fresh lesion.



5



7



8

BACILLARY NECROSIS. To illustrate paper by Capt. GEORGE HOWIE, A.V.C.





necessary to attempt the treatment of cardiac diseases. This, by means of accurate examination, which permits a precise diagnosis, and a suitable treatment, is not impossible in a good number of cases.

Severe work, scanty and bad food, and chronic diseases of other organs, first cause cardiac debility. The horses appear fatigued and exhausted; they have little appetite; any every slight effort causes profuse sweats. The pulse is weak, soft, and often irregular; the number of pulse-beats is 50, 60, or much more. The impulse of the heart is distinct at first; but, with the prolongation of the cardiac debility, it becomes weak in consequence of a degeneration of the myocardium. The cardiac sounds are at first clear but weak.

This form of cardiac debility is often observed in horses which have participated in long marches or in fatiguing work at munition transport during periods of military action. It is not rarely accompanied by moderate swelling of the limbs.

The affections which determine an organic lesion of the myocardium are as follows:—

*Acute myocarditis* occurs in the course of severe infectious diseases, the result of which depends upon the resistance of the heart. In this affection the pulse is small, scarcely perceptible, and arrhythmic. It counts up to 100 per minute, and more. The cardiac sounds are weak, with the first sound dull and indistinct. The mucous membranes are reddened; and high fever, debility, and exhaustion are present.

*Acute cardiac hypertrophy* is often the consequence of overwork. In this affection the impulse of the heart is palpitating. The pulse is full and strong. Percussion reveals an extensive dulness. The pulse reaches 60 to 80 per minute, and is generally regular. The cardiac sounds are clear. Any slight effort causes a profuse sweat, great weakness, and a tumultuous throbbing of the heart.

Defect of the Bicuspid is the most common *valvular affection of the heart*. In this case the most important diagnostic symptom is an extensive systolic murmur, usually a blowing sound, which is heard at its maximum in the fifth intercostal space. This systolic murmur is usually also perceptible in the great arteries (carotid, etc.) The second cardiac sound is clear. The pulse is frequent and weak. When these horses are made to move the systolic murmur increases, and dyspnea occurs in consequence of a venous hyperæmia in the lungs.

*Insufficiency of the aortic valve* may also be encountered, though more rarely. The principal symptom of this is a diastolic murmur which is perceived at the fifth left intercostal space. The pulse is full, strong, and bounding; This character is due to the fact that the heart throws a great quantity of blood into the aorta, a part of which regurgitates in consequence of the imperfect closure of the semi-lunar valves.

The treatment of cardiac diseases generally gives good results, provided that rest and good feeding are not lacking. The best remedy is *Pulv. digitalis*

*ol.*, which is given in liquid in doses of from 6 to 8 grammes. This regulates the cardiac function and augments the arterial pressure. Digitalen and digalen give less good results, and also have the drawback of being more costly.—(*La Clinica Veterinaria*). W. R. C.

#### Inoculating Cows against Contagious Abortion.

The following is from a note on the Report for 1917 of the Munster Dairy School and Agricultural Institute in *The Farmers' Gazette*.

"We wish more particularly to refer to the further account given of the scheme for inoculating cows as a preventive measure against contagious abortion. This work was first started in 1916, when Mr. J. F. Healy, M.R.C.V.S., was engaged by the Institute to test the value of the inoculation method which had already been found of great use in some parts of England. In that year 140 cattle were inoculated (free of any cost to the owners), and the results, which were quite satisfactory, have already been published. It was decided to continue the work in 1917, but it was arranged that only herds belonging to members of the Institute should be treated. One herd of 14 animals was sold and dispersed after inoculation, five other cows were sold subsequently and lost sight of, and one died. Of the remainder only 11 aborted, and two were barren, giving 7.78 per cent. of the total number left at the end of the experiment which did not produce a live calf.

*Cows inoculated.	Calved right.	Remarks.
10	4	4 cows sold, 2 barren.
15	13	1 aborted, 1 was sold owing to having a bad dug
12	11	1 aborted. The owner thinks this was the result of an accident as it occurred two days after jumping a fence.
32	29	2 cows aborted, 1 died.
20	18	2 aborted.
15	13	2 aborted.
25	24	1 aborted.
19	16	2 aborted within two months of their time. 1 also that was not inoculated.
14	14	2 cows not inoculated aborted.
14	—	Herd sold by order of Govt.
8	—	Doing well.
3	—	Doing well.

\* All these animals had previously aborted.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

W. A. Elder, Swaziland, S. Africa	£1 1 0
H. E. A. L. Irwin, Capt. A.V.C.	1 1 0
J. P. A. Morris, Lieut. A.V.C.	1 1 0

Previously acknowledged 1085 10 11

£1086 13 11

**BAILLIÈRE'S ATLAS OF THE HORSE, ITS ANATOMY AND PHYSIOLOGY.** By O. CHARNOCK BRADLEY, M.D., D.S.C., M.R.C.V.S., Principal of the Royal (Dick) Veterinary College, Edinburgh, and THOMAS G. BROWNE, M.R.C.V.S., Professor of Anatomy, Royal Veterinary College, Dublin. With original plates by GEORGE DUPUY, M.D. Size 9½ by 17½. Pp. 38. Five coloured and eight plain plates. Price 7/6 net. (Baillière, Tindall, & Cox, 8 Henrietta St., Covent Garden, London, W.C.)

The "Anatomical and Physiological Atlas" is much more anatomical than physiological, only a little physiology is included in it. It naturally divides into two parts, text and notes; and the former of these may again be subdivided into two. After a short introductory section, we have a survey of the anatomy and physiology of the horse. This comprises rather more than nineteen three-column pages, and may be summarily described as containing about as much information, conveyed with admirable lucidity, as it would be possible to compress into so small a space. Except that the section upon the lymphatic system, which is very short, and differs from most of the work in containing rather more physiology than anatomy, might advantageously have been lengthened a little to convey more detailed information of the location of the glands, there is little scope for criticism. The whole of the remaining portion of the text is devoted to a description of the plates. This is very well and carefully done, and is more than a mere description of plates; for not a few additional anatomical details are interspersed. The plates themselves are excellent, both in their selection and execution. The thirteen plates contain no less than 119 figures, a dozen of which are of obstetric presentations; and altogether they form a most useful collection.

The book is the best one of its class we have seen, and will be useful to very varied sections of readers. Its utility to the veterinary student for strictly examination purposes is limited; for the text, as the mere enumeration of its pages shows, does not contain nearly sufficient detail for either the first or the second professional examination. The plates will be more useful to the student for reference upon special points and comparison with other works; and here the practitioner also may occasionally find the book useful. It will be of greater utility to the first-year student desiring a good general idea of equine anatomy before entering upon its details; and for this purpose it is probably the best book available. Also, it will be valuable to many horsemen who wish to know something of the subject; for there is nothing in it that a moderately educated reader cannot grasp with a little trouble. Altogether the work is of genuine utility, and well worth its small cost.

W. R. C.

**COMMON DISEASES OF PIGS AND THEIR DIAGNOSIS, INCLUDING SWINE FEVER AND ITS TREATMENT WITH SERUM.** By ERNEST PEACEY, F.R.C.V.S. Crown 8vo. Pp. viii. +114. Price 8/6 net. (Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, London, 1918).

In the preface to this little book the author says: "The following notes are the outcome of more than twenty years practical experience, and I have reason to hope that they may help the veterinary practitioner to arrive at a solution of the many problems which confront him in the exercise of his profession, and that they may be of equal assistance to the veterinary student and the stockowner." Two or three sentences later he remarks, "My aim has been to present a condensed account of the various diseases of swine as encountered in ordinary practice." These two extracts, with the title and number of pages, give a fair idea of the nature and scope of the book. It consists of a series

of short (in many cases very short) sections upon the numerous subjects embraced by the title, with additional sections upon the feeding and general management of pigs, dentition, and some statistics. Like several other writers, the author strongly condemns the unreasonable and mischievous practice of feeding stale swill to pigs. All the commoner diseases of pigs, including those which are scheduled, are dealt with, chiefly as to their symptomatology and post-mortem appearances, with a view to differential diagnosis. Therapeutics are seldom entered upon; though there is a short and quite non-technical section upon the serum treatment for swine fever.

So many subjects are included in so small a space that the work is inevitably very superficial in character; all the more so from the fact that it has been written for lay as well as for professional readers. There is little in it which a layman cannot readily grasp; there is a good deal, on the other hand, which need not have been inserted had the book been written for veterinarians alone. Still, the author has managed to compress a good deal of information into his small space, especially as regards symptoms and post-mortem lesions; and so little has yet been written upon the differential diagnosis of porcine diseases that probably many practitioners will find the book helpful. A larger and more detailed work upon the same subject, written for professional readers and including therapeutics, is one of the needs of the times; but for the present, this little volume is likely to do useful service.

W. R. C.

#### ARMY VETERINARY SERVICE

Buckingham Palace, Nov. 16.

The King held an Investiture in the Ball Room of the Palace at 10.30 o'clock this morning, when His Majesty conferred decorations as follow:—

##### THE MILITARY CROSS.

\* \* \* \*

Major ALFRED HORNER.

The King has given orders for the following appointments to the Order of the British Empire, for distinguished services in connection with military operations (June 3, 1918):—

##### MESOPOTAMIA.

Officers (O.B.E.)—Capt. R. M. BAMFORD.

##### EAST AFRICA.

Members (M.B.E.)—Capt. F. J. SHEEDY, E.A.V.C.  
Capt. R. C. WHEELER, A.V.DEPT.

#### Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Nov. 16.

##### REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Capt. J. McL. Dawson, M.C., relinquishes his comm. and is granted the hon. rank of Capt. (Oct. 15).

Temp. Capt. A. C. Piesse resigns his comm., and is granted the hon. rank of Capt. (Oct. 20).

Nov. 19.

Temp. Capt. T. W. I. Gardiner relinquishes his comm. on acct. of ill-health, and is granted the hon. rank of Capt. (June 5). (Substituted for notification. *Gazette*, Nov. 24, 1917).

**The A.V.C. Comforts Fund.***Subscriptions received since November 2nd.*

F. W. Trydell, Capt. A.V.C.	£2	2	0
A. Huband, Capt.	1	1	0
A. H. Fass, Esq., Newmarket	10	10	0
per Lt.-Col. F. C. O'Rorke, A.V.C., from Regt. Fund, No. 7 Vety. Hospl.	10	0	0
T. Mayor Parker, Capt. A.V.C.	1	1	0
T. Morland, Capt. A.V.C.	1	1	0
J. J. Gates, Esq., Salisbury	4	0	0
per Maj. Logan, A.V.C., from Regt. Fund Div. Vety. Hospl., St. Albans	20	0	0
per Maj. Drabble, A.V.C., from Regt. Fund Vety. Hospl., Swaythling	5	0	0
per Maj. P. J. Simpson, A.V.C., from Regt. Fund, Div. Vety. Hospl., Romsey	10	0	0
P. J. Simpson, Maj. A.V.C.	1	1	0
per Capt. G. F. Stevenson, A.V.C., from Regt. Fund, Vety. Hospl., Larkhill	10	0	0
G. F. Stevenson, Capt. A.V.C.	5	0	0
per Lt.-Col. A. S. Head, A.V.C., from Regt. Fund, Vety. Hospl., Pitt Corner	25	0	0
W. Dunlop Smith, Col. A.V.C.	2	0	0
G. C. Robertson, Capt. A.V.C., Bungay	10	6	
S. T. Jackson, Capt. A.V.C., Bungay	2	6	
C. W. Elam, Lt. A.V.C., Bungay	5	0	
Mrs. Eassie, Aldershot	10	0	
per Maj. P. S. Morgan, A.V.C., from Regt. Fund, Vety. Hospl., Shirehampton	10	0	0
J. Abson, Maj. A.V.C.	2	0	0
E. E. Bennett, Col. A.V.C.	2	0	0
per Maj. S. Black, A.V.C., from Canteen Fund, No. 4 Reserve Section A.V.C.	15	0	0
S. Black, Maj. A.V.C.	1	1	0
R. Owen, Capt. A.V.C.	1	1	0
W. S. Anthony, Col. A.V.C.	2	2	0
L. A. Auchterlonie, Maj. A.V.C.	1	1	0
H. Featherstonhaugh, Capt. A.V.C.	1	1	0
F. C. Minett, Capt. A.V.C.	1	1	0
C. Bryden, Capt. A.V.C.	1	0	0
F. G. Buxton, Capt. A.V.C.	1	1	0
J. W. Bennett, Capt. A.V.C.	1	1	0
F. Benwell, Lt. A.V.C.	1	1	0
R. G. Linton, Lt. A.V.C.	10	6	
O.C. No. 3 Reserve Vety. Hospl.	2	2	0
O.C. Station Vety. Hospl., Borden	2	2	0
O.C. Station Vety. Hospl., Witley	10	0	0
J. Tagg, Maj. A.V.C.	2	6	
H. C. Taylor, Capt. A.V.C.	15	0	
W. W. Scales, Capt. A.V.C.	2	6	
R. D. Williams, Capt. A.V.C.	2	6	
W. R. Hill, Capt. A.V.C.	2	6	
E. Thomas, Sgt. A.V.C.	2	6	
W. F. Scott, Sgt. A.V.C.	2	6	
W. A. Potts, Capt. A.V.C.	1	1	0

Previously acknowledged

158 8 6  
736 4 1**£2894 12 7***Parcels received since October 26th.*

Mrs. Speer : 6 pr. mitts.	Mrs. Nicholls : 3 pr. socks
Mrs. Garnett : 24 mufflers (3rd contribution)	
Mrs. Lornie : 3 mufflers, 3 helmets	
Mrs. Wilson : 4 prs. mitts.	Mrs. Fenn : 3 mufflers
Mrs. Leckie : 12 mufflers, 10 pr. socks, 12 pr. mitts, 1 cap	
Belfast War Supply Committee, per Mr. Spratt : 265	
Mrs. Bennett : 4 mufflers, 3 pr. mitts.	[mufflers]
Mrs. Bolton : 1 muffler, 1 pr. mitts.	
Mrs. Villa : 6 mufflers.	Mrs. Plunkett : 2 mufflers

War Supply Depot, Ayton : 36 mufflers, 16 pr. mitts.  
 Mrs. Fearnside : 12 pr. mitts. Mrs. Pallin : 2 mufflers  
 Mrs. Perry : 7 mufflers, 5 pr. socks, 5 pr. mitts, 2 pr. cuffs  
 Mrs. Kirby : 12 mufflers, 3 pr. mitts.  
 St. Alban's Work Party, Streatham Park : 14 mufflers,  
 Mrs. Norman : 33 pr. mitts. [1 helmet, 17 pr. mitts.  
 Mrs. Pallin : 2 mufflers, 6 pr. socks, 6 shirts, 2 helmets,  
 Mrs. Callen : 4 mufflers, 2 pr. mitts. [3 pr. mitts.  
 per Mrs. Howarth : 30 mufflers, 6 pr. mitts, 13 helmets  
 Mrs. Weir : 2 mufflers, 2 pr. gloves, 6 helmets, 1 cardigan  
 per Mrs. Cowan : 49 mufflers (2nd con.) [2nd con.]  
 per Mrs. Malcolm Gordon : 50 mufflers, 17 pr. mitts.  
 Mrs. Moore : 12 mufflers, 1 pr. socks, 13 pr. mitts., 4  
 helmets, 4 hussifs, 1140 handkerchiefs

**TERMINOLOGY AND DIAGNOSIS.***To the Editor, "The Veterinary Record."*

Dear Sir,—That knowledge of essential causes should be clearly outdistanced by terminology is, of course, one of the things to be regarded simply as inevitable: for pathology had appeared all too late, and the lead held from the first by arbitrary differentiation it has ever since maintained. Thus, various clinical manifestations having, for all that is known to the contrary, a common cause have come to be differentiated, the one from the other, and each regarded as the expression of a separate and wholly different specific cause.

Take, for instance, the existing classification of infectious respiratory diseases, more particularly "Strangles," and what is referred to as "Catarrhal influenza"—a differentiation, needless to say, that is not approved by anything like irrefutable bacteriological evidence. Nor does it appear admissible even on the clinical evidence whereon it is supposed to be based. Hence the insuperable difficulty ever besetting the matter of segregation where in an outbreak of infectious respiratory disease characterised from the first by catarrhal symptoms, a variable proportion, say 75% more or less, of the affected cases in a stable show symptoms which, according to the tenets of differential diagnosis should be referred to Catarrhal influenza, whereas the less proportion show symptoms which indicate unmistakably "Strangles" infection. As regards differential diagnosis and segregation under these circumstances, the fact is that in no other direction may clinical observation be more inevitably and completely confounded—that is to say, if the clinical differences upon which this distinction is based should be regarded seriously.

That these differences can hardly be so regarded there are, of course, those who have for long enough been persuaded. And evidence is accumulating which goes to show that the unquestioning acceptance of the differentiation in question is by no means generally admitted. Of this evidence not the least gratifying part is a decidedly less emphatic enunciation of this distinction in some of the latest text-book expositions on the subject.

In view of all the circumstances wherein this divergence of symptoms is known to appear, the idea that "Strangles" and Catarrhal Influenza are fundamentally different necessarily pre-supposes the simultaneous appearance of two separate and different infections, explicable—if at all—only in terms of coincidence. But the very fact of the known frequency of the occurrence of this divergence of symptoms will hardly admit of this explanation. Nor is it admissible in view of what knowledge there is of the order of succession of different bacterial invasions; far less by what is known to occur not only in the stables, but under circumstances of complete isolation and of infection under natural conditions—as in the case of young, unbroken

horses in the open. Even under these circumstances it is to be observed the divergence of clinical symptoms upon which this differentiation has been upheld.

How very misleading so doubtful a basis of differentiation may well be, the history of bacteriological research proves conclusively; just as it proves that these differences of clinical manifestations, so far from being necessarily related to different causes may be in reality but the varied clinical expression of different degrees of virulence of the infective agent on the one hand, and of varying degrees of receptivity on the other; and thus it is that the pathway of bacteriological advance is marked more perhaps by the effacement of arbitrary differentiations based on apparently divergent clinical manifestations, than by anything else.

What further abridgement in terminology is thus destined to undergo is a question of speculative interest. As in the past so, doubtless, in the future, by slow, yet by inevitable degrees, bacteriological research it may be hoped will reveal, among other things, what correspondence there really is between nomenclature of respiratory diseases and the relevancy of its application.

Yours faithfully,

L. McLAREN, M.R.C.V.S.

#### A CORRECTION.

Mr. G. A. Banham, Mr. H. J. Dawes, and Mr. S. H. Slocock were present at the meeting of the Veterinary Tribunal on Nov. 8. Their names did not appear in list of members published last week.

#### OBITUARY.

DAVID COOPER, M.R.C.V.S., Ribbleson, Lancs.

Graduated, Edin: April, 1873.

Mr. Cooper died 15th November, aged 70 years.

ALFRED HOLBURN, M.R.C.V.S., Congleton, Cheshire.

Edin: May, 1894.

Mr. Holburn's death occurred suddenly on Saturday, 16th inst.

GEORGE MURRELL, "Existing Practitioner," retired, Ashford, Kent.

Death took place 1st November, at the age of 86.

LLOYD.—At Oswestry, Shropshire, on November 11, Hilda, dearly-loved elder daughter of Mr. and Mrs. J. S. Lloyd, Brook Lodge, Fulwood, Sheffield.

#### The late Mr. Searby.

A correspondent sends us the following notes:—

Mr. BERNARD A. SEARBY, M.R.C.V.S., of Ramsey, Huntingdon, whose death occurred on October 29th, at the early age of 34, from pneumonia following influenza, commenced to practice in this district a few years ago, and speedily made headway in the county. His wide professional knowledge coupled with a genial disposition gained him many friends, and the news of his death will be received with general regret, not only by his clients and professional colleagues, but by a wide circle of acquaintances. Much sympathy is expressed for his wife and children.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks (a)	Animals.	Out-breaks (a)	Animals.	Out-breaks (b)	Animals.	Out-breaks (b)	Animals.		Out-breaks (a)	Slaughtered.*
	Dogs	Other Anmls											
Gr. BRITAIN.													
Week ended Nov. 16	15		8	9			2	12	53	82	11	30	6
Corresponding week in	1917		3	3			1	1	38	60	8	24	4
	1916		8	8					25	37	12	63	30
	1915		10	11	7	68			13	35	5	66	191
Total for 46 weeks, 1918	71	2	219	253	3	14	29	88	3855	7224	285	1261	516
Corresponding period in	1917		378	429			24	49	2137	4014	439	1950	933
	1916		471	556	1	24	44	112	1871	4152	222	3928	8977
	1915		504	570	38	463	42	76	1723	1567	174	3584	15366

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Nov. 19, 1918

† Counties affected, animals attacked:—London 11, Suffolk 1

Excluding outbreaks in army horses.

#### IRELAND.

Week ended Nov. 9		...	...	...	...	...	...	Outbreaks	8	...	...
Corresponding	1917	...	...	...	...	...	...	...	3	1	6
Week in	1916	...	...	...	...	...	...	...	17	8	27
	1915	...	...	...	...	...	...	1	9	11	16
Total for 45 weeks, 1918		2	2	...	...	...	...	93	270	25	85
Corresponding	1917	3	5	...	...	1	1	41	335	193	1118
period in	1916	3	7	...	...	...	...	58	383	285	1626
	1915	1	1	...	...	1	3	65	355	220	1272

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Nov. 11, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1586.

NOVEMBER 30, 1918.

VOL. XXXI.

## METHODS OF WOUND TREATMENT.

The article by Mr. F. T. Harvey upon "B.I.P.P." treatment of wounds, which appeared recently, will interest many practitioners. The treatment, so far, seems to have been little used in veterinary surgery, in civil practice at least, but it deserves an extended trial—for two reasons. One is the notable success which the treatment has achieved in human surgery; the other, and a stronger one, is its peculiar adaptability for general veterinary practice.

The importance of adaptability to veterinary conditions is well shown in the comparison between the three methods of wound treatment now most in vogue amongst human surgeons, with which Mr. Harvey concludes his article. Carrel's treatment has given wonderful results in human surgery; but those who are acquainted with its complicated details will admit that its use in veterinary work will always be subject to very considerable limitations. Something like this might also be said, though perhaps not quite so strongly, of Wright's hypertonic wound treatment. Both these methods may prove very valuable in our work—under suitable conditions; but there are many veterinary cases, the great majority in some practices, in which they would probably be much less efficacious than older antiseptic methods which have been known for decades.

For wound treatment in every-day veterinary practice, two of the chief desiderata are simplicity and the minimum of responsibility upon lay attendants. Carrel's and Wright's methods are far from meeting either of these requirements; but the case is different with the B.I.P.P. treatment. This latter certainly demands scrupulous care at the time of its application; but that can be given by the clinician himself, and nothing need be left for laymen to perform in the intervals between professional visits. General practitioners, who know too well what lay treatment of wounds very often is, even after careful veterinary instruction, will appreciate the value of this qualification.

Even though this B.I.P.P. method, like other procedures for wound treatment, may lose its present favour amongst surgeons working under good conditions, it may yet have a considerable future in every-day veterinary work. Very often, in general veterinary practice, the question is not What is the ideal treatment? but What treatment can be most effectively carried out under these conditions? This is the consideration which renders such treatments as the B.I.P.P. especially worthy of veterinary attention. It is not surprising that Mr. Harvey has had good results from it; and he has done a useful service by communicating them to the profession.

## THE TREATMENT OF EQUINE MANGE WITH NICOTINE.

Querruan published an article upon this subject in the *Revue generale de Médecine Vétérinaire* for 1917. The following are his general lines of treatment. He forbids all local or general clipping. He treats all mange horses in their units, even in cases where the disease is dispersed or generalised; the only mange patients he sends to the dépôts are those which are enfeebled. His treatment is the application of lotions containing standardised extract of nicotine, the formula being extract of nicotine 30 parts, water 1000 parts, and sodium carbonate 3 parts.

The details of the treatment are as follows. On the first day the anterior half of the body is dry-rubbed with a wisp of hay, followed by the application of the lotion over the same region. From 1 to 1½ litres of the lotion is sufficient. On the third day the same dry-rubbing and lotion are applied to the posterior half of the body. The treatment is then re-applied on the anterior half of the body on the fifth day, on the posterior half on the seventh day, and so on until the cure is complete. The application of lotion on any one day should never extend to more than one-half of the body.

In cases of generalised mange a definite recovery does not result until after ten applications of the lotion. In slight or early cases four or five applications suffice.

In cold weather the horses should be walked immediately after the lotion is applied, or, if that is not possible, should be rugged or sheltered. During the whole treatment the animals may be worked; and, if the feeding is good, neither the treatment nor the mange causes debility.

The author's clinical observations show that after two or three applications of the lotion the pruritis disappears and the case seems cured; but this recovery is only apparent. It requires ten applications to completely free the horse from acari.

In regions where the skin is crusted and depilated, the dry-rubbing is omitted lest it should cause erosion, and the lotion is applied as before stated. It is the lotion that cures, not the dry-rubbing.

In crusted regions, the crusts separate spontaneously at the end of ten to fifteen days. The skin recovers its flexibility; and this spontaneous desquamation is one of the signs that recovery is near. The application of lotion causes neither crusts nor dermatitis.

Lotions of nicotine are very injurious to acari, lice, etc., and disorganise sarcoptic colonies for a long time. Three applications of lotion are suffi-

cient to hinder all attempts at colonisation for a month. The author has observed that horses treated three times with nicotine lotions remained more than a month without showing any recrudescence of the disease. This prolonged injurious effect of nicotine upon colonies of acari renders treatment by tobacco juice very adaptable to all the conditions of campaigning life.

It may be objected that nicotine lotions have been known to cause intoxication; but the author says that in thousands of horses, he has not had one case of poisoning.

Treatment with nicotine is also to be recommended for psoroptic mange of the horse.—(*Revista de Veterinaria de Espana*).

#### IS CONCEPTIONAL RABIES POSSIBLE?

P. Remlinger, in April last, reported the results of his experiments upon this question to the *Société Biologie*. The possibility of conceptional rabies supposes the presence of the rabies virus in the sperm or the ovule. Various authors have already reported negative results of examinations of the semen for rabies virus; Blasi and Travallo alone obtained positive results. Remlinger is not aware of any investigations upon the presence of the virus in the ovary.

Remlinger carried out four series of experiments upon 33 rabbits and 51 guinea pigs. Into these animals he injected emulsions of the contents of the seminal vesicles, testes, and ovaries of guinea pigs which had died of rabies. In the first three series the injections were made simultaneously under the dura mater and into the muscles of the neck, and in the last series by the latter method alone. In the first series the emulsion was of the contents of the seminal vesicles, in the second of testes, in the third of ovaries, and in the fourth of a mixture of the contents of seminal vesicles and testes or ovaries.

None of the 84 experimental animals contracted rabies; and all were under observation for sixteen months after the experiments, a period more than sufficient for the development of the disease. Remlinger therefore concludes that conceptional rabies does not exist, and that all the cases of "hereditary rabies" proceed from a placental contamination.—(*Revista de Higiene y Sanidad Pecuarias*).

#### THE PASSAGE OF THE RABIES VIRUS FROM THE MOTHER TO THE FŒTUS.

The importance of this question, and the rarity of published cases, have led A. Lanfranchi and F. Lenzi to report the following new case.

The subject was a young bitch, which was brought to the authors suffering from dumb rabies, and died a day or two later. A post-mortem examination was made immediately after death, and revealed the presence of seven fœtuses at term. Negri's bodies were sought for in scrapings and in fixed and stained sections from the region of Ammon's horn in both mother and embryos. The result was positive for the mother, but negative for the embryos.

Biological tests were then adopted. Medullary extracts from the mother and all the fœtuses were injected into rabbits, with every precaution to guard against error. Some rabbits were injected subdurally, others into the anterior chamber of the eye, and others intramuscularly. All the rabbits injected died of rabies.

Contrary to the views of Loir and of Conradi, the authors saw no evidence that the virus had become attenuated in its passage from the mother to the offspring.

Their observations, therefore, lead them to the conclusions that (1) the rabies virus, in the infected bitch, may cross the placental filter to infect the fœtus, and that (2) filtration across the placenta, in dogs at least, does not produce an attenuation of the virulence.—(*Revista de Higiene y Sanidad Pecuarias*).

W. R. C.

#### Prosecution by R.C.V.S.

At the Dorking Petty Sessions on Wednesday, Nov. 20, John Akehurst, of Capel, was summoned on two informations with having unlawfully acted and described himself as a veterinary surgeon, contrary to Section 17 of the Veterinary Surgeons Act, 1881. There was no appearance for the defence.

Mr. M. H. Haygarth, of Horsham, prosecuted, and said the proceedings were instituted by the Royal College of Veterinary Surgeons under Section 17 of the Veterinary Surgeons Act of 1881, which provides that, "if after the 31st day of December, 1883, any person other than a person who for the time being is on the Register of Veterinary Surgeons, or who at the time of the passing of the Act holds the veterinary certificate of the Highland and Agricultural Society of Scotland, takes or uses the title of veterinary surgeon, or veterinary practitioner, or any name, title, condition, or description, stating that he is a veterinary surgeon or a practitioner of veterinary surgery, or of any branch thereof, or is specially qualified to practise the same, he shall be liable to a fine not exceeding £20." Explaining the facts, Mr. Haygarth said that in April last a Mr. Swire, of Warnham, bought a pony at Messrs. Crow's Auction Market under a warranty, and had her examined by Mr. Akehurst, who gave the following certificate: "April 29th, 1918. I have this day examined a bay pony for Mr. Swire, and find her very lame on her off hind leg. J. Akehurst, Vet. Surgeon, Capel." The pony was returned to Messrs. Crow. Mr. Swire was informed that the certificate was not in order inasmuch as Mr. Akehurst was not a veterinary surgeon. Mr. Swire thereupon saw Mr. Akehurst, who said he was a registered man, which, in fact, was not the case. If the Magistrates were satisfied that defendant had contravened the Section he would ask them to inflict such a penalty as would be a deterrent in the future, not only to defendant but to others. It was not right to gentlemen who held the degree of M.R.C.V.S. that unauthorised persons should act in this way, nor was it fair to animals that they should be left to the tender mercies of unqualified and unskilled persons.

Mr. Swire, of Blackboro, Ditchling, and late of Hingfold Farm, Warnham, said that when he took defendant's certificate to the auctioneers it was disputed on the ground that it was given by an unqualified man. He then saw the defendant, to whom he said, "You are supposed to be an unqualified man, and I am afraid there will be some litigation in the matter."



Defendant replied: "I'm not afraid of that. I'm a registered man." Witness said, "I suppose you are referring to 1881?" and defendant said, "Yes, I am."

Mr. Haygarth, having given formal proof that defendant was not a registered veterinary surgeon, the Magistrates convicted, and imposed a fine of £5 including costs.

[Both Solicitor and Magistrates—the one in his statement, and the others by the light fine—appear to have overlooked the preamble of the Act, which describes it as "provision . . . to enable persons requiring the aid of a veterinary surgeon for the cure," etc.]

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

John Allan, Castle Douglas,			
Kirkcudbright	£1	1	0
T. G. Browne, Prof., R.V.C., Ireland	1	1	0
J. A. Griffiths, New Langenburg, E. Afr.	1	1	0
J. Hughes, Welshpool	1	1	0
S. T. Jackson, Capt. A.V.C.	1	1	0
J. H. Ripley, Hurst Green, Sussex	1	1	0
Previously acknowledged	1088	13	11
	£1094	19	11

#### CATTLE INSPECTION— COMPULSORY v. PERMISSIVE.

Sir—May I express the earnest hope that with the advent of the "Ministry of Health Bill" our Council will take strong steps to see that the Profession is entrusted with its proper work with regard to tuberculosis. When one realises that 75 per cent. of cases of cervical tuberculosis in children are of bovine origin it is obvious how essential the work of the veterinarian is in the proper and regular inspection of milking cows—the application of the tuberculin test, and the bacteriological examination of milk, etc.

The time is now opportune for the Representatives of the Profession to take a strong hand, and it is to be hoped that this will be done, not only for the sake of ourselves, but what is more important, for the State in general, both for the present and future generations.

I would suggest that our Council approach the Local Government Board to take action to ensure that the various local authorities should act in a more uniform manner. It is the rule in some counties to have the markets inspected by their veterinary inspectors, but in others this is not the case—the result is obvious—sheep-scab and other diseases are spread from the county in which inspection is not carried out to neighbouring counties. In Staffordshire, for instance, no inspection is carried out, yet in Warwickshire, which it adjoins, the markets are inspected—the distance between markets being quite small.

If the inspection is necessary in one county why not in another? The police of one county where inspection is performed are left wondering as to why a market one mile away but in another county is not so inspected, and this wonderment is aggravated when an outbreak occurs which is traceable to diseased animals being exposed in the markets of the adjoining county! Surely something should be done to ensure uniformity of action in the carrying out of preventive measures against contagious diseases.—Yours etc.,

M.R.C.V.S.

November 1918.

#### A CURIOUS DOCUMENT.

Recently there came before the writer's notice a document emanating from a M.R.C.V.S., and Local Veterinary Inspector of the Board of Agriculture, pertaining to the examination of a filly. The document states "At the request of — I have this day examined a brown Clydesdale filly, two years off, and number — in the sale catalogue. In my opinion the inside of the near fore coronet is slightly enlarged and is stronger than the inside of the off coronet." Then follows signature with the letters Sg. in front thereof.

Apparently it would be a misnomer to call the above a certificate. It is not a letter, and it is really very difficult to state exactly what it is. But one thing is certain—it is a worthless document to give to a client, and if it were given with the object of helping a client to get something knocked off the price of the abnormal animal, it will not fulfil its object.

The granting of such documents by qualified men shows that there is much room for progress in the profession. What can auctioneers and lawyers think of us when they peruse such emanations? It is to be noted that (1) the description of the animal is not fully given, (2) neither is the date or place of sale, and (3) no opinion is given as to the unsoundness or soundness of the animal.

F.R.C.V.S.

#### "'FLU' CAUSED BY BAD BACON."

Dear Sir,—I have noticed that in several papers complaint was made at a meeting of the Newcastle Food Vigilance Committee that the influenza epidemic was caused by bad bacon; and it was said that a local doctor had treated 400 patients for swine fever instead of influenza, and found the treatment efficacious.

I was visiting a medical friend the other day, and he was quite of the opinion there was something in it. It would be interesting to know what line of treatment this Newcastle medico took. The Board of Agriculture and Fisheries, and the veterinary profession in general will feel indebted to this man if he has at last got on the right track in the treatment of swine fever. No doubt he is more advanced in the pathology of swine fever than we are.

Possibly the S.F. serum treatment has been administered to all "in-contact animals"—himself included.

Yours faithfully,

T. F. HALL, M.R.C.V.S.

Saffron Walden.

#### NOTES ON BOOKS.

NOTES ON MEAT AND FOOD INSPECTION FOR SANITARY INSPECTORS. By JOHN T. COWDEROY, Chief Sanitary Inspector, Borough of Kidderminster. Second Edition. Pp. 78, exclusive of index. Price 2s. 6d. net. (The Sanitary Publishing Company Ltd., 8 Bream's Buildings, London, E.C. 4. 1918).

In his preface to this little "remembrancer," as the author calls it, he describes it as "an index to larger works" and "so arranged that the busy inspector may quickly arrive at any point."

This aptly summarises the book, which is intended for part-time food inspectors in the smaller towns rather than for whole-time men in the larger ones. Within these limitations, the volume is likely to do good. It contains a little over 70 pages of "notes," an index exceeding two pages, and one or two blank leaves for memoranda. The notes are very concise, and cover the principle diseased conditions met with in meat and food

inspection, various points to be noticed in examining carcasses and organs, the positions of the chief lymphatic glands, the most important legal clauses governing the duties and powers of food inspectors, and similar matters. The whole is necessarily very condensed and fragmentary; but still the author has compressed a good deal of information into a very small space. So far as it goes, the work is well done; and, though it is a long way from meeting the needs of veterinarians and whole-time food inspectors, there are others who will find it helpful. Veterinary surgeons concerned in meat inspection refer to very different books for guidance; but their work may bring them into touch with men to whom this little volume may usefully be recommended.

**VETERINARY HANDBOOK AND VISITING LIST.** By THOMAS B. ROGERS, D.V.S. Price 6s. net. (J. B. Lippincott Coy., Philadelphia and Henrietta St., London).

This little book belongs to a class well known to English practitioners. The first 119 pages contain a variety of information useful to veterinarians, chiefly arranged in tabular form. Among the most useful items are tables of posology, poisons and their antidotes, incubation periods of the commoner animal contagious diseases, durations of pregnancy in the various domesticated animals, the strength of the U.S.P. tinctures most used in veterinary work, and the relative value of metric and apothecaries weights and measures, with some account of prescription writing, and a few elementary hints on bacterial therapy. The posological table is good and full, and contains a useful feature in the form of blank columns for the clinician's addition to it; but the fact that it is based upon the U.S. Pharmacopœia is a distinct disadvantage to English practitioners. The only item which is really useless to English readers is a summary of a new United States Revenue law governing the sale and use of certain narcotics.

The visiting list is conveniently arranged, and contains room for a year's work at an average of 54 clients per month. This does not represent a large practice; but not every client need be inserted in such a list. Altogether the book will be useful to those who like such a collection of information arranged in a handy form; but its price certainly seems high, and its casting upon U.S.P. lines is an undeniable drawback here.

### ARMY VETERINARY SERVICE

War Office, Nov. 22.

The following are among the Decorations and medals awarded by the Allied Powers at various dates to the British Forces for distinguished services rendered during the course of the campaign (the King has given unrestricted permission in all cases to wear the Decorations and medals in question):—

*Conferred by the President of the French Republic.*

CROIX DE GUERRE.

\* \* \* \*

Capt. W. J. BAMBRIDGE, A.V.C., Spec. Res.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Nov. 22.

REGULAR FORCES. ARMY VETERINARY CORPS.

Temp. Maj. (actg. Lt.-Col.) R. J. Stordy, D.S.O., to be actg. Col. whilst holding the appt. of Dep. Dir. of Vety. Servs. (Oct. 14).

Capt. R. W. Mellard, D.S.O., relinquishes the actg. rank of Maj. on ceasing to hold the appt. of Dep. Asst. Dir. of Vety. Servs. (Oct. 1).

Cpts. to be actg. Majs. whilst Dep. Asst. Dirs. of Vety. Servs.:—H. G. Tabuteau-Herrick, M.C., Spec. Res.; F. Hopkin (T.F.) (Oct. 2).

Nov. 26.

Temp. Maj. T. C. Evans, M.C., Can. A.V.C., ceases to be secd. for duty with War Office (Oct. 10).

Nov. 27.

Capt. and Bt. Maj. (temp. Maj.) G. E. Tillyard to be actg. Lt.-Col. whilst holding the appt. of Asst. Dir. of Vety. Servs. (May 29).

Temp. Lts. to be temp. Cpts.:—W. S. Petrie, J. P. Rice (Nov. 12).

TERRITORIAL FORCE, ARMY VETERINARY CORPS.

Nov. 26.

Capt. W. K. Barron to be actg. Maj. whilst comdg. a Vety. Hospital (Nov. 13).

India Office, Nov. 26.

To be Lieut.:—K. Hewlett (April 1, 1917).

### R.A.V.C.

By Royal Warrants published in Army Orders on Wednesday, 27th inst., the Army Veterinary Corps (together with the A.S.C. and A.O.C.) are to have the distinction of "Royal," in recognition of "the splendid work" which they have performed during the war.

### OBITUARY.

M. ALLAN, M.R.C.V.S., "Birchmount," St. Leonards Rd., Windsor. Graduated, Lond: May, 1897.

Mr. Allan died 23rd November, aged 44 years.

CHARLES WM. GREGORY, M.R.C.V.S., Temple St., Bristol. Lond: May, 1861.

Death took place 17th November, at the age of 80.

ROBERT MCNAE, M.R.C.V.S., Maxwelltown, Dumfries. Lond: April, 1873.

Mr. McNae passed away 21st November, aged 71.

### Personal.

GIBBS.—On the 20th Nov., 1918, at the Château de Fossé, Le Fossé, Seine Inférieure, France, to Yvonne (née du Fossé du Bosmelet), wife of Lt.-Col. H. E. Gibbs, D.S.O., A.V.C.—a daughter (Viviane).

At a monthly meeting of the Council of the Pharmaceutical Society of Dublin, on Nov. 12, the Registrar read a letter of appreciation and thanks from Mr. John McBirney, M.R.C.V.S., M.P.S.I., on the completion of his term of office as Examiner in Chemistry.

### Charge of Cruelty at Reigate— mange and starvation.

At the Reigate Police Court, on Thursday, Nov. 7th, Jenny Ethel Elizabeth Hamilton, of the Cedars, South Park, was charged on remand with ill-treating ten dogs and four cats. The magistrates who tried the case were his Worship the Mayor (in the chair) and Mr. W. H. Bagaley.

Mr. Polhill, of the R.S.P.C.A., prosecuted, and Mr. Jenkins defended.

The evidence of P.S. Sturt, who visited the Cedars with P.S. Hood was read over. Cross-examined, witness said they found the four cats on the table, and they appeared to be in a starved condition. When the dogs

were fed at the police station they were very ravenous, and tried to force their way out of the boxes to get at the food. There were about 14 lb of dog biscuits found on the premises.

In reply to Mr. Jenkins: As far as I know I should say they were suffering from mange and had been neglected. They had not received proper treatment. So far as I could see no attempt had been made to relieve the suffering of the dogs.

In what way do you mean nothing had been done to relieve the sufferings?—By dressing and washing them. I suggest they had not received sufficient food.

Did you go over the house?—Yes.

And what food did you find?—About 14 lb of dog biscuits, some 20 to 30 lb of oatmeal, and 4 or 5 lb of rice.

P.S. Hood stated he spoke to defendant when P.S. Sturt and he visited the Cedars on the 30th ult. He told Miss Hamilton they were police officers and had been instructed by the Head Constable to call and see her dogs.

They saw a light Pomeranian, which was aged and very mangy. The right eye was missing, and the hollow was full of matter. The left eye was affected and almost blind. It was in a very neglected condition.

Defendant brought from the interior of the house a cross-bred Bedlington Irish terrier. There were humoury sores on the eyes, ears and body.

There was no complaint made with regard to the third and fourth dogs shown to them.

The fifth dog was in fair condition. It was aged, but was suffering from a skin disease.

A brown mongrel had skin disease on chest and legs, and was very weak in the hind quarters. It seemed to be crippled; otherwise it appeared to be in a fair condition.

A smooth-haired fox terrier had skin disease all over the body and head, and was in poor condition. An Irish terrier was in a very poor condition. It had skin disease all over the body and legs, scabs and sores on the haunches, probably due to scratching.

A white fox terrier bitch in poor condition, and covered with a skin disease.

A toy bull terrier in a very emaciated condition, covered from head to foot with a skin disease. The body was covered with sores, and it was very weak.

Miss Hamilton then said, "That's all the dogs I have. You have seen them all." He asked her if she had any cats, and she replied, "Yes; they are out." He insisted upon seeing the condition under which they were kept, and went into the house with P.S. Sturt. The house was almost devoid of furniture. There were a few packing boxes about the house, and a number of small boxes.

On going into the kitchen they saw four cats on the table in a crouching position. They were in a poor condition, and suffering from mange, and had no life at all in them.

He also saw in a box a cross-bred terrier bitch in a very emaciated condition. It was covered with skin disease from head to foot, and almost too weak to stand. He raised it on its feet, and it fell down again. It was really nothing but a bag of bones.

In the scullery they found a black mongrel bitch with scarcely any hair on the body. It was in a shocking emaciated condition, and the bones almost protruded through the skin. She was suffering from a skin disease.

He said to the defendant, "Why did you not produce these two dogs at the inspection?" She hesitated and seemed confused, and, said, "I had forgotten." They found a quantity of dog biscuits, oatmeal and rice in different parts of the house. There was no receptacle for either food or water for the dogs, and there were no signs of any food having been given to the dogs. The stench was so bad that they frequently had to leave the

house to get a breath of fresh air. The twelve dogs and four cats were taken to the police station, where they were fed, and they ate the food ravenously. Their thirst was almost unquenchable. They were fed three times that day, and were ravenous on each occasion. He had had the dogs and cats in his charge since then. With the assistance of several ladies they had been looked after, fed, watered and exercised. With the exception of the toy bull terrier they had greatly improved in bodily condition. The cats had also improved.

Inspector Discombe, R.S.P.C.A., spoke to being present when the dogs were examined by P.S. Hood and P.S. Sturt, and gave corroborative evidence as to the condition of the dogs. There was no evidence that the dogs had been dressed, and they had received no treatment at all. In his opinion the dogs and cats had suffered very much from not having received proper treatment. Since the dogs had been in charge of the police they had greatly improved, with one exception spoken to by the previous witness.

Mr. Jenkins: In what way do you say they have not received proper treatment?—They had not been dressed or washed or disinfected. They have been left there and nothing done for them.

How long do you suggest treatment had not been given to them?—For seven days at least.

Do you suggest the cats were suffering from mange?—Yes.

Mr. C. A. Squair, M.R.C.V.S., Veterinary Inspector to the Borough of Reigate, gave evidence as to the condition of the dogs and cats. The French poodle (described by Sergt. Hood as a black mongrel) was in a horrible condition. He had marked it down in his notes "diabolical." It was very emaciated, and the bones were almost protruding through the skin.

In reply to the Clerk, witness said all the dogs were more or less emaciated, and had apparently been neglected as regards food and treatment. When they were in the boxes at the police station they fought for their food.

Mr. Polhill: If these dogs had received proper care and treatment could they have got into the condition in which you found them?—Most certainly not.

What do you suggest should be done with the ten dogs?—I certainly should have them destroyed both from the fact they have skin disease, and from the national point of view, as the food question is a difficult one.

Can you say these dogs had any treatment or dressing for skin disease?—No; except one of them, which defendant brought to my surgery about two months ago.

You have heard oatmeal was found at the house. Would that be proper food to give to the dogs?—Not for dogs suffering from skin disease.

Do you say these dogs were suffering from pain as the result of their condition?—Yes. I think there is no question about it.

Mr. Jenkins: What sort of food do you suggest they should have had?—Plain dog biscuits.

So if they had dog biscuits they would have been properly fed?—They ought to have been in a better condition. When suffering from mange they require more food.

Witness was questioned as to defendant seeing him in respect to one of her dogs, and he said he suggested it should be destroyed. He asked defendant at the time if she had any other dogs, and she said, "Yes, five or six others," and that they associated with each other. Defendant also told witness the other dogs were free from disease, and he then gave her medicine for chronic eczema.

Mr. Polhill: When did you see the dog again?—About three weeks ago.

What was its condition?—It was slightly improved.

Did this lady at any time ask you to go and see the other dogs?—No.

The Clerk: Do you consider it would be cruel to keep these dogs alive?—No, not the whole ten. It would be very cruel to keep some of them alive.

Mr. Charles Malvisi, M.R.C.V.S., York Road, King's Cross, gave corroborative evidence, adding that it was his opinion that all the dogs had been cruelly treated, and had no medical treatment of any kind. The whole of the ten dogs ought to be destroyed for the sake of the dogs and for the sake of others.

Mr. Polhill: If these dogs had received reasonable care and treatment could they have got into the condition you found them?—No. Had they been treated in the first place for the disease they would have got over it.

What do you say about the cats?—They have got the mange in a mild form. Their bodily condition is fair, but for the sake of other cats I should destroy them.

Mr. Jenkins: Do you suggest all animals suffering from mange should be killed?—Yes; suffering as these are.

#### THE DEFENCE.

Defendant said she had been a member of the R.S.P.C.A. since she was a child. Her friends assisted in the foundation of the Society. "I gave a subscription yearly and won every case I took to them. I continued to subscribe until they had vivisectionists on the Council. Since then I have not given a farthing.

After you ceased to be a member is it a fact that the Society has persecuted you ever since?—Yes.

Mr. Polhill: I must protest against these statements.

They had a case against me a short time ago. I was prosecuted for some of the dogs that are mentioned in this case. The Bench dismissed the case.

Continuing, witness said since 1908 she had taken an interest in stray dogs, and had cared for them. She had had through her hands hundreds of them, and they had improved under her care. She had had them when in a bad condition, and had got them round, finding them good homes.

Mr. Jenkins: Is it a fact that you have devoted your life to try and improve the condition of these dogs?—Yes, since 1908, and have devoted every farthing I had to stray dogs and cats.

Have you done all in your power to support the dogs, and have the dogs been properly taken care of?—Day and night I have thought of nothing else.

Witness also told the Court she had consulted the College of Veterinary Surgeons and several veterinary surgeons in London about the condition of the dogs, and was doing all she could for them.

Mr. Polhill: Have you any objection to them being destroyed?—Yes, I have.

Do you object to the taking of life?—Yes, without a very good reason.

Witness, further questioned, said it did not occur to her the dogs were suffering from mange. She thought the dogs had tape worms, which often brought about an eruption of the skin.

John Jupp, a jobbing gardener, of South Park, stated he had purchased by orders of defendant, paunches for the dogs and fish for the cats.

Hilda Hood, of South Park, spoke to visiting Miss Hamilton on many occasions. She had been in the house almost every day, and had seen the food being prepared for the dogs. Dog biscuits, oatmeal and rice was prepared for the dogs, and fish was cooked for the cats. She had purchased by order of the defendant Boviline for the cats.

Mr. Polhill: What did you go to the house for?—To see the animals.

Do you know anything about dogs or their treat-

ment?—I am very fond of dogs, and know that they should have plenty to eat, and exercise.

Witness had several conversations with Miss Hamilton about the condition of the dogs, and she said it arose from different causes. She noticed the dogs were very thin, and suggested that two of them should be destroyed. Miss Hamilton told her she thought she could cure the dogs.

Mrs. Davis, of South Park, said she had been at defendant's house once.

Mr. Polhill: What reason had you for going to see the dogs?—Because I heard they were neglected.

When was that?—About five weeks ago.

What did you say to Miss Hamilton when you got there?—I asked her if I could see the dogs. She only showed me three. I asked to see the others. She said they were all in bed and tied up in other rooms, and might bite me.

What was the condition of the dogs you saw?—One seemed to have something wrong with his legs, and the eyes were rather bad. She asked me if I could tell what was the matter with the dogs. I told her I could not, except that one looked as if it had rheumatism or rickets.

Mr. Frederick Cousens, M.R.C.V.S., Surgeon to the Zoology Society, the Canine Society, and His Majesty the King, said he had known the defendant for a number of years, and that she had been in the habit of looking after stray dogs and cats from a philanthropic point of view.

Mr. Jenkins: She had been devoted to dogs?—Yes, it seems to me that it has been the one aim of her life to look after stray dogs, and she would be the last person to cause them any suffering.

Has she from time to time consulted you as to the treatment of the animals?—Yes; sometime personally, and sometimes over the telephone.

And you have prescribed, and have learnt subsequently that the animals have improved?—Yes.

Have you seen these animals?—Yes, to-day.

What is your opinion now that you have seen the dogs. Do you suggest they have been neglected in the way suggested?—May I put it like this? So far as the description of the dogs is concerned, that one given by first witness is accurate.

The Mayor: Did you see the dogs a week ago?—No.

Continuing, witness said the evidence of the second witness (Sergt. Hood) was exaggerated. Of course, no one could blame him for trying to get a conviction.

Mr. Polhill: I object to these remarks.

Mr. Jenkins: What is your opinion in regard to these dogs so far as Miss Hamilton is concerned. Do you think she has done what any reasonable person would do, having seen the dogs?—I can't answer what Miss Hamilton has been doing. I do think if a dog has skin trouble which causes irritation or internal parasitism, that dog would become thin even if eating good food.

Witness expressed the opinion that all the dogs could be treated satisfactorily and get well, notwithstanding some of them were aged. Certainly aged dogs did not respond to treatment the same as young dogs. As to the cats, they were in a much better condition than the dogs.

Mr. Jenkins: It is suggested that three dogs must be destroyed. What is your opinion?—If you listen to the witnesses in the box, yes; but it is my business to try and cure, and not kill.

Supposing you took these particular animals in hand, I suppose you are certain you could bring them round?—I should expect to bring them round.

Mr. Polhill: Do you agree that a number of these dogs have got skin disease in an advanced stage?—Yes; it is more or less chronic.

Don't you think it is desirable when dogs get to that

stage they should be destroyed?—I would say I would properly care for them.

Do you consider it cruel to keep these dogs alive?—Every dog has a right to live.

Would you take these dogs to your kennels?—Yes.

What would you do with these dogs if your advice were asked?—I would put them in hospital to be treated.

Mr. F. Wooff, M.R.C.V.S., Croydon, gave corroborative evidence.

The Bench retired, and returning to the Court, the Mayor said defendant would be fined £15, and ordered to pay £5 costs. The bench also ordered the dogs to be placed in the care of Mr. Cousens.—*Surrey Mirror*.

[The foregoing is somewhat abridged. It is stated that this case occupied the Court for more than four hours.]

#### Contamination of Milk.

The results of some experiments conducted in America show that it is the utensils rather than the barn that are largely responsible for the excessive bacterial contamination of milk. In one experiment: when all the utensils commonly used for handling the milk at the barn and in the dairy were thoroughly steamed, the milk had uniformly only about 5,000 bacteria per cubic centimetre, but if the steaming was omitted the bottled milk frequently contained several hundred thousand bacteria per cubic centimetre. The cans used for carrying milk are found to be a particularly prolific source of bacteria when they are washed at the dairy and returned to the farm without being thoroughly steamed and dried. The number of bacteria usually added to the milk by such cans was many times larger than the number that ordinarily get into the milk at the barn; the addition of a million bacteria per cubic centimetre of milk by such cans was not uncommon. It seemed to the experimenters that in an attempt to produce milk with low germ content, too much stress had been laid on practices of minor importance, and the influence of utensils badly steamed and not dried had been commonly neglected.

It was determined by a series of bacterial counts to what extent the condition of the milk was influenced by (1) the use of sterilised utensils, (2) the precaution of washing the udder and teats before milking, and (3) the reception of the milk in a small-top pail, which is described as being of the ordinary type, but with a fixed top having a small semicircular opening near the edge.

The results indicated that, with sterilised utensils, the bacterial numbers were 6306 per cubic centimetre, against 73,308 when they were not sterilised.

With udder and teats washed, the average was 2154; unwashed, the average was 4524.

By the use of a small-top pail the numbers of bacteria

were 750,000 per cubic centimetre, whereas with an ordinary pail the numbers were 1,200,000.

These workers conclude the above three factors, together with keeping the milk at a low temperature, to be the most important points in the production of fresh milk with a low bacterial content.

#### Goat-breeding in Ireland.

At a meeting of the Irish Goat Society, held at 9 Ely Place, Dublin, the Secretary, Miss K. S. Saunders, said they had made considerable progress within the last few years. Since the Committee meeting held in April, two promising branches had been started at Coleraine and Cookstown, and thirteen new members had joined, making a total of over 90 members in all. Owing to the acute shortage of milk the demand for goats had increased enormously since 1914.

The Society, had consequently resolved to establish a small goat farm at Trillick, Co. Tyrone. The Department of Agriculture gave the Society a small grant in 1916 towards the general expenses of running the farm. The number of goats and kids distributed throughout Ireland from the farm and district of Trillick in 1916 was over 50, but such was the ever-increasing demand that the Society in 1917 applied for a further grant from the Department, which was generously accorded. During the financial year 1917-1918 over 104 goats and kids were sent out from the farm at Trillick, and within the last six months over 64 goats and kids have been sold from the farm. Besides these sales, the Secretary arranged several purchases for different members of the Society, as well as many exchanges of stud goats.

A great deal has been done to ensure a high, all-round standard of milk production by means of careful selection of sires, and by steady breeding from the best stock. Over 40 male goats were distributed through the country last year. The Society also arranges an exchange of these goats among the different members, so that unrelated sires may be introduced into each district at suitable intervals.

In other countries, notably in Switzerland, the standard of milk production has been greatly raised by constant care in selection and breeding. By this means the time of lactation has been lengthened, and it has been found possible to produce an animal that will kid out of the usual season, and so ensure a supply of milk during the months when our native goats are dry. The manager of the goat farm mentioned that out of a herd of 15 milch goats, five were due to kid during November and January, thus plainly demonstrating that winter kidding is no longer a problem.

Miss Saunders, Trillick, Co. Tyrone, will be pleased to answer any questions with regard to goats and goat keeping.—*The Farmers' Gazette*.

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders† (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Out-breaks	Slaughtered.
<b>IRELAND.</b>											
Week ended Nov. 16	...	...	...	...	...	...	Outbreaks		9	1	2
Corresponding Week in	1917	...	...	...	...	...	...		11	1	7
	1916	...	...	...	...	...	1		11	5	52
	1915	1	1	...	...	...	...		7	4	5
Total for 46 weeks, 1918	2	2	...	...	...	...	93		279	26	87
Corresponding period in	1917	...	8	5	...	1	1	41	846	194	1125
	1916	...	8	7	...	...	...	59	894	290	1678
	1915	...	2	2	...	1	3	65	352	224	1277

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Nov. 18, 1918  
 Note.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## Feeding Cake from Rubber Seed.

Feeding trials have been made with rubber seed cake at the South Eastern Agricultural College, Wye, Kent. A feeding trial with cake made experimentally from kernels imported from Ceylon was carried out at the College during the latter part of 1912 and the beginning of 1913. A sample from this consignment examined at the Imperial Institute was found to be strikingly similar to linseed cake in composition. The chief difference is in the quantity of "fibre," which is only 5.01 per cent. in the case of Para rubber seed cake, against 9.10 per cent. in linseed cake. Like linseed cake, Para rubber seed cake may yield small amounts of prussic acid, and the amount furnished by this sample is rather high, but it produced no ill effects on the animals fed with the cake.

All attempts at feeding sheep with this sample of rubber seed cake failed. But the results with cattle-feeding were altogether favourable. The cake was fed to a pair of two-year-old fattening heifers, which readily ate the food. The quantity of cake was increased gradually to eight pounds per head per day, but this caused pronounced scouring, and even five pounds of Para rubber seed cake eaten daily with 56 lb of mangolds produced a slight laxative effect on these immature animals.

Further experiments with [another batch of two-year-old beasts confirmed this conclusion. Two of the beasts were killed at the conclusion of the experiments; the butcher reported the carcasses to be of first-class quality, and the beef of excellent flavour. One of these heifers had received six pounds of cake per day for ten weeks.

Six barren cows with an average milk yield of 1½ galls. per day, were fed with increasing amounts of the cake

until, at the end of a week, each animal was receiving 14 lb of cake per day. The cake was the only concentrated food supplied to the animals, and the ration was continued for six days without any marked change in the animals' excreta. The ration being richer than that previously allowed, the yield of milk rose, but the percentage of fat in the milk was practically unchanged. Butter was made from the milk produced during the first three days, and again from that of the second three, and in each case the texture, smell and flavour of the butter was considered to be unaffected by the change of concentrated food.

These cows were fattened while still in milk, the daily quantity of rubber seed cake being reduced from 14 lb to 8 lb., and 4 lb of other cake added. The cows remained in a very healthy condition, and maintained a high milk yield until they were intentionally dried off about a month before sale to the butcher. The increase in live weight over an average fattening period of nine weeks was 1.7 lb per cow per day, and the milk yield was 0.85 gallon per cow per day, the cows being in milk an average of six only of the nine weeks.

The value of Para rubber seed cake as a food for cattle has been clearly established by these experiments. It now remains to secure the co-operation of the rubber planting companies to place the production of rubber seed oil and rubber seed cake on a commercial basis, and so set up a new industry within the Empire. The mother country would gain a valuable addition to its cattle feeding stuffs, while the rubber producing Colonies would profit by the utilisation of what has hitherto been a waste product. Vast quantities are at present allowed to go to waste on the rubber plantations in the Malay Peninsula, Ceylon, Java, and other parts.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Swine Fever.	
	Cases Confirmed		Outbreaks		Outbreaks		Outbreaks		Outbreaks		Outbreaks	
	Dogs	Other Animals	(a)	Animals.	(a)	Animals.	(b)	Animals.	(b)	Animals.	(b)	Slough-tered.
Gr. BRITAIN.												
Week ended Nov. 23	6		4	4			1	1	87	144	12	15
Corresponding week in { 1917			10	13			1	1	62	107	8	35
{ 1916			15	19					23	34	25	70
{ 1915			10	10	2	97	4	4	21	45	3	66
Total for 47 weeks, 1918	77	2	223	257	3	14	30	89	3942	7368	297	1276
Corresponding period in { 1917			388	442			25	50	2199	4191	447	1985
{ 1916			486	575	1	24	44	112	1894	4186	247	3995
{ 1915			514	580	40	560	46	80	1749	1612	177	3650

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Nov. 26, 1918

\* Counties affected, animals attacked:—Surrey 1

Excluding outbreaks in army horses.

IRELAND.		Outbreaks		1		10		1		36	
Week ended Nov. 23		...	...	...	...	...	...	...	...	...	...
Corresponding Week in { 1917		...	...	...	...	...	...	...	...	...	...
{ 1916		...	...	...	...	...	...	...	...	...	...
{ 1915		...	...	...	...	...	...	...	...	...	...
Total for 47 weeks, 1918		...	2	2	...	...	...	94	289	27	123
Corresponding period in { 1917		...	3	5	...	...	1	1	41	360	195
{ 1916		...	3	7	...	...	...	...	59	406	291
{ 1915		...	2	2	...	...	1	3	65	371	227

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Nov. 25, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or exposed to infection



# THE VETERINARY RECORD

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## PUBLIC HEALTH REGULATIONS.

A correspondent, in a letter printed last week, calls attention to the question of "Compulsory v. permissive Cattle inspection," and some other subjects suggested by the advent of the Ministry of Health Bill. All this is part, and a very important part, of the "re-construction" which we are promised. Next year we may have to consider a multitude of very wide and complex subjects, many of them probably overlapping. Public health is one of the most intricate of these. A great deal of it does not directly concern our profession; that portion which does is a larger subject than at first sight appears.

At present all our veterinary public health administration, except control of the few scheduled diseases, is inco-ordinate and inadequate. Local regulations show a grievous lack of uniformity, are often insufficient to meet individual requirements, and are lamentably so in the gross when we consider national requirements. Even a casual examination of our methods will reveal many points requiring alteration; but both study and consideration will be needed to devise a system which shall satisfactorily replace them.

Our correspondent of last week urges uniformity in the veterinary inspection of markets and fairs, and instances counties in which such inspection is performed and others in which it is not. We may all well agree with him so far; but the mere enforcement of uniform "veterinary inspection" upon local authorities is not sufficient. It is necessary also to ensure as far as possible that the inspection shall be efficient—as, for instance, to provide that the inspectors shall have time to do their work properly. It is common knowledge that disease has been spread from markets which were not inspected. It has also certainly been spread from markets which were said to be "inspected," but at which the veterinarians were too over-worked to accomplish an inspection worthy of the name. This fairly illustrates the whole subject—our present system is so unsatisfactory, both in construction and working, that the indication of one weak point generally suggests other related ones in equal need of amendment.

The subject is well worth consideration by professional societies; and the discussion and publication of specific instances of differences or defects in local regulations might be especially valuable just now, but it would be well to recognise that an attempt to approach a Government department, made by an isolated Society with no title to represent the profession, would be more likely to do harm than good.

## THE COWSHED INFECTIONS OF NEWLY-BORN CALVES, AND SERO-PROPHYLAXIS.

Prof. Pietro Stazzi, of Milan, has written a report of his work in this direction. In his experience, the infections in question have almost always been due to the *bacillus coli*, and great success has been obtained from the use of polyvalent sera prepared by means of different strains of this microbe. Stazzi's conclusions may be summarised as follows:—

1. Several thousand tests have proved that bovine anticolibacillary serum is an excellent means of prophylaxis and treatment in cow-shed infections of newly-born calves. More than 95% of these infections, at least in Lombardy, whatever clinical forms (dysentery, polyarthritis, bronchopneumonia) they may assume are colibacilloses.

2. In the more common cases of *extra-uterine* infection (which occurs either by the digestive tube or by the umbilical cord) one or two injections of 20 c.c. of serum suffice to protect the newly-born calf against the contagion. The injections may be subcutaneous, intramuscular, or, better, intraperitoneal.

3. In rare cases of enzootics with *endo-uterine* infection, to arrest the mortality, it is necessary to inoculate the cows some days before parurition with the same serum, in doses of from 40 c.c. to 80 c.c., and afterwards to perform the usual inoculations (preferably into the peritoneum) upon the newly-born calves.

4. In cases of enzootic, in which calves which are protected by the serum from the septicæmic form of the disease afterwards show colibacillary complications of pneumonia, arthritis, etc., it is well to follow the injection of serum, after two or three days, with the injection of an autogenous vaccine.

5. The serum gives the maximum results (protecting 100% of newly-born calves) when it is prepared from the same microbial strain that has caused the enzootic. Hence a special serum should be prepared for every enzootic. When this cannot be done, the best possible results are obtained by preparing a polyvalent serum from given groups of enzootics which have developed in a territory. Several such polyvalent sera are now prepared in Italy for use in different parts of the country. Cases may occur in which, though the serum producing animals are in a state of advanced hyper-immunisation, and their serum is active against the bacterial strains which have been used to produce it, it has little or no effect against an enzootic caused by different strains. In such the serum may, in a few days, be rendered active against the new strains also by the intravenous inoculation of some loops of culture.

Numerous tests prove that if the greatest possible number of strains are used in the preparation of serum, and these can be subdivided among a good number of serum-producing animals, it is possible to obtain polyvalent sera of high efficacy against almost all enzootics.

Along with the use of the sera, Stazzi, of course, advises disinfection of cow-sheds, and all possible hygienic care of the animals, both before and after parturition. Among other measures he recommends allowing the calf to suck the first milk from the cow, in order to favour the elimination of the meconium.—(*La Clinica Veterinaria*)

#### THE PREVALENCE OF BOVINE TUBERCULOSIS IN THE PUNJAB.

G. Taylor contributed an important note upon this subject to the *Indian Journal of Medical Research* of January last. Hitherto tuberculosis in cattle has not attracted much attention in India, the general idea is that the native cattle are comparatively free from the disease. This idea appears to be erroneous, according to the data furnished by Taylor in this paper, which is based upon observations recorded subsequent to the institution of a proper system of meat inspection at Ferozepore Cantonment slaughter-house, Southern Punjab.

The inquiry was carried out from August, 1915, to March, 1916, during which period 3276 animals were admitted for slaughter. These animals had almost all arrived from the Central and South-eastern districts of the Punjab, and were all of the indigenous breed. The method of meat inspection entailed the examination of all animals while still alive, and thus 575 of the above animals, or 17·8% were rejected as not likely to be fit for human consumption on account of innutrition, disease, or old age. It is probable that a good many of these cast animals were suffering from chronic tuberculosis. Of the remaining selected animals 95, or 3·5 per cent., presented after slaughter what appeared to be macroscopic tuberculous lesions. In 60 of these cases tubercle bacilli were demonstrable in the lesions on microscopic examination. The distribution of the lesions in each of the affected animals is depicted in tabular form. The animals found to be tuberculous were all females; this would be due to the fact that cows and heifers form by far the largest source of meat supply. The lesions in the selected cattle were nearly all of a localised nature.

In all but two cases the disease was confined to the thoracic cavity. The bronchial and mediastinal glands were most commonly affected, either alone or associated with invasion of the lungs. In many cases the lesions were so limited in extent that they were only discovered after very careful search. In the two cases noted there were lesions in the mesenteric glands in addition to those in the thoracic cavity. In only one case was anything like a generalised condition of the disease found—in a cow about nine years of age. This was the only case in which the udder was affected.

During the year 1916-17 (1st April to 31st March), 4610 animals were brought for slaughter. Of these 821, or 17·8 per cent., were rejected as unfit for

slaughter. Of the remaining animals, which were slaughtered, 125, or 3·3 per cent., were found infected.

The above figures appear to indicate that tuberculosis is by no means uncommon in the Punjab. It is a striking fact that hitherto practically all the cases recorded have been confined to Northern India, the Southern Provinces apparently being free. Further investigation on this subject is required.—*Trop. Vet. Bulletin*.

CASE RECORDS. Ambulatory Clinic, N. Y. State Veterinary College. Prepared by D. H. UDALL, and F. F. KOENIG.

#### GASTRIC ULCER.

An eight-months-old Guernsey heifer in good condition was found at pasture in the morning lying down and reluctant to rise; all usual food was refused. The nights were cool and the grass had been frozen.

*Symptoms.* The animal was found down, weak and depressed. On rising the back was arched, the hair rough and dry, eyes sunken, conjunctival mucous membrane pale and icteric. Pulse 80, Resp. 12, Temp. 99. Extremities cold. Digestive system: Complete anorexia, m.m. of mouth cool, moist and sticky, slight rumination, abdomen usual size, very active peristalsis, evacuations frequent and watery.

*Clinical diagnosis.* Acute gastro-intestinal catarrh predisposed by cold nights and induced by eating frozen grass.

*Treatment.* Placed heifer in a box stall and covered with a blanket. Administered 20 c.c. of camphor liniment (1:4) per subcutis. Bismuth subnitrate 3 ss. R̄ Fluid Extract zingiberis 3 ss., Fl. Ext. nucis vomicae m.xx. M. Given in water as a drench. Prescribed 30 grains of sodium sulphocarbonate three times daily. R̄ Fl. ext. nucis vomicae 3 ii, Fl. ext. zingiberis 3 iiss, alcohol 3 iiss. Give in four doses during the next 24 hours. Feed two quarts of warm milk three times daily.

The second day the heifer was much brighter, eyes were less sunken, and there was more colour in the m.m. The milk had been taken as directed. Pulse 120, temp. 99·4. Peristalsis still very active, evacuations watery. Administered bismuth subnitrate 3 ss. Digitalen 1 c.c. per subcutis. Prescribed R̄ Fl. ext. zingiberis 3 iv, Spiritus ammoniac aromatis 3 iv, Fl. ext. nucis vomicae 3 ii. M. Sig. Give an ounce dose at two-hour intervals from 12 m. to 10 p.m. Give 120 grains of sodium sulphocarbonate three times daily.

On the third morning the animal was much better. A tonic was left and directions to call at once if improvement was not maintained.

On the seventh day the condition was reported as very much worse. Patient was found down and unable to rise without help, the left eye was swollen shut and discharging pus. Pulse 72, temp. 98·8. Extremities cool. The usual amount of milk was taken. Mouth dry and cool, peristalsis very active, evacuations watery and foetid. Administered oil of camphor and bismuth as on previous days, and

prescribed stimulants of aromatic spirits of ammonia with nux combined with large doses of sulpho-carbolates.

Eighth day no improvement. Temp. 98.4. Death occurred in the afternoon.

*Autopsy.* Marked cedematous thickening of the mucosa of the abomasum. The mucous membrane was elevated in folds of one to two inches high, arranged so closely that they could be turned like leaves. On the folds were numerous ulcers varying in size and depth, and a few necrotic spots. The surface was thickly covered with a dirty greyish mass of meal-like consistency. The liver was very yellow and friable, the kidneys hæmorrhagic and friable. The intestinal mucosa presented a slight catarrh.

The symptoms of gastric ulcer in bovines are quite variable, and do not often indicate clearly the real lesion. Salvisberg has recently described four cases in which the symptoms were divergent. *Case I* died suddenly without showing any previous symptoms. Blackleg was suspected, but the autopsy showed three perforations of the abomasum that had resulted in exudative peritonitis. The mucosa was cedematous and covered with numerous ulcers. The perforations were small, resembling holes made with a leather punch. *Case II*—a three-year-old cow that had shown diarrhoea for several days. Appetite and rumination completely lost. Pulse 86, resp. 20, temp. 104. Eyes sunken, profuse diarrhoea. Diagnosis of enteritis or gastric ulcer. He mentions the use of hydrochloric acid in making a diagnosis in this case, and infers that it aggravates the symptoms. Autopsy showed an cedematous mucosa, and numerous ulcers. *Case III* he regards as the most typical of this disease. The victim was a cow at pasture suspected of having gastric strongylosis. Chronic diarrhoea with watery, gaseous foetid evacuations, marked emaciation, and failure to give milk led to a diagnosis of chronic specific enteritis (Johne's Disease). On autopsy the intestinal mucosa was normal. Abomasum found cedematous, spiral folds thickened and ulcerative. *Case IV* was similar to *II*. All four cases were seen in August to November.

#### ACUTE GASTRO-INTESTINAL CATARRH.

A two-week-old Guernsey heifer had been dull and eaten poorly for four or five days, the faeces had been very firm and slightly streaked with blood.

*Symptoms.* Depression. Condition poor. Temp. 103.2. Appetite poor. Faeces almost white, very firm, and slightly streaked with blood.

*Treatment.* Administered 10 c.c. oil camphor (1:4) per subcutis, ol. ricini  $\frac{3}{4}$  iii, followed by enemas and the removal of a small quantity of firm faeces. Prescribed R. Fl. ext. zingiberis  $\frac{3}{4}$  i, Fl. ext. nucis vomicae  $\frac{3}{4}$  iv, alcohol q.s.  $\frac{3}{4}$  ii. M. One tablespoonful three times daily in milk.

Fifth day, calf was brought to the clinic. On this morning about one quart of milk was taken, but the general history was that of anorexia, depression, weakness, and constipation. Up to this time the calf had received 10  $\frac{3}{4}$  of castor oil.

*Symptoms.* Too weak to rise, skin dry and tense, expression dull, eyes slightly sunken. Pulse 110, resp. 48, temp. 102.2, nose dry and cold, extremities cold. Digestive system: Oral m.m. highly congested. Tympany on percussion over fourth stomach, abdomen reduced in size. Faeces yellow, pasty, foetid, and contained small, coagulated clumps. The skin around the anus was macerated with accumulations of faeces. Administered ol. camphorae 35 c.c. per subcutis during the day and evening in four doses. Enemas of normal salt solution were given at two-hour intervals, and each time a variable amount of pasty faeces was removed. A considerable amount of the salt solution was retained. 100 c.c. of normal salt solution was given in the jugular vein, and  $\frac{3}{4}$  i of bismuth subnitrate was given in milk. The feed consisted of about 250 c.c. of equal parts of milk and lime water containing 8 c.c. aromatic spt. ammonia three times daily. Also administered gr. 1/15 strychnine sulphate per os.

Sixth day, less depression than yesterday, found standing in the morning, less congestion of the oral m.m., peristalsis active, evacuation slight and pasty. Pulse 75, resp. 16, temp. 103. Administered ol. camphorae 35 c.c. in 5 doses; about 1 qt. equal parts lime water and milk during the day; 40 c.c. arom. spt. ammon. in 5 doses; 450 c.c. sterile salt sol. per vein; 1/15 gr. strychnine sulph. per os; 10 c.c. white scour serum (P.D.); and frequent enemas. At 9 p.m. attitude was slightly improved.

Seventh day no improvement, slight serous discharge from eyes, treatment about as on the sixth.

Eighth day, purulent discharge from eyes. Pulse 64, resp. 28, temp. 101.6, moribund condition, death at 12.30 p.m., about three weeks old.

*Clinical Diagnosis.* Acute gastro-intestinal catarrh with a marked congestion, or inflammation of the stomach revealed by the redness of the oral mucosa.

*Autopsy.* The abomasum was greatly distended and contained a large amount of a yellowish-green semi-liquid mass. Within the mass was one tangled ball of hay about the size of a man's fist, in addition to which was considerable hay scattered through the contents. The mucosa was highly reddened. Masses of hay and straw were found in a greenish semi-fluid mass in the rumen. A semi-solid greenish mass resembling clay was found in the caecum. The serous and mucous coats of the intestines were congested, especially those of ileum. Contents of small intestines slimy; of rectum slimy, containing coagulated clumps. Umbilical cord apparently normal. Cultures from the liver, spleen, and blood remained sterile. A pure culture of *B. coli* was found in the abomasum, rumen, and small intestine. When the autopsy was reported to the owner he recalled that the calf had eaten freely of hay when quite young.

The eating of hay, straw, and shavings by sucklings is not an infrequent habit. According to our available clinical reports it usually results in dysentery, and it is commonly described under this heading. In cases like the above it would seem appropriate to regard this condition as primarily

that of a foreign body in the stomach to which all other functional and anatomical changes are secondary. With this point in view an accurate clinical diagnosis would be more probable, and in this case the presence of a foreign body was actually suspected by Dr. Koenig.—*The Cornell Veterinarian*.

#### REPORT OF THE CIVIL VETERINARY DEPARTMENT, ASSAM, FOR THE YEAR 1917-18. [Abridged.]

During the year under report I continued to hold charge of the Civil Veterinary Department, Assam, and was on tour for 187 days, travelled 7156 miles by rail, 2296 miles by steamer, and 1334 miles by road.

The following hospitals and dispensaries were inspected by me :—

Shillong, Gauhati, Tezpur, and Dibrugarh three times; Silchar and Tinsukia twice each; Hailakandi, Karimganj, Patharkandi, Sylhet, Maulvi, Bazar, Habiganj, Dhubri, Goalpara, Bilashipara, Behali, Mangaldi, Nowgong, Sibsagar, Nazira, Jorhat, and Mariani once each. The cattle at the Upper Shillong Farm were twice inspected by me. In the districts outbreaks of contagious diseases were investigated and results of serum inoculation were checked as opportunity occurred.

I attended the camp of exercise at Dibrugarh and examined the candidates for Farriers' Certificates. I attended the Agricultural Show at Shillong and was one of the judges of live stock, also the Agricultural Conference held at Poona in December. As in previous years, I attended the Bengal Veterinary College as a member of the Board of Examiners.

In the Laboratory at headquarters 218 specimens were examined, of which 56 were found to be Anthrax, 28 Hemorrhagic septicæmia, and 9 Surra. In the previous year 128 specimens were examined.

#### Veterinary Instruction.

Twenty-four students attended the Bengal Veterinary College: they were distributed as follows :—

Class.	Stipendiaries: Government.		Local Board.	
	Students.	Passes.	Students.	Passes.
1st year	7	5	2	2
2nd year	7	5	—	—
3rd year	6	2	5	1
Total	20	12	4	3

There was only one private student in the 1st year class during 1917-18. He failed in the examination and was removed from the College.

#### Treatment of Diseases.

The total mortality as compared with the previous two years is as follows :—

	1915-16.	1916-17.	1917-18.
Equines	115	262	113
Bovines	41,104	44,952	55,354
Others	2,317	2,718	5,243
Total	43,536	47,932	60,710

These figures are furnished by the district officers and have been checked by the Veterinary Assistants as far as possible.

**EQUINES.**—*Anthrax*. There were 35 deaths reported from 7 districts. In the previous year 42 deaths were reported from 5 districts. Diagnosis was confirmed by microscopic examination in all districts.

*Surra*. Thirteen deaths were reported from this disease in 4 districts during the year, against 26 deaths in 5 districts in the previous year. Diagnosis was con-

firmed in all districts except the Garo Hills, from which no specimen was received for examination.

*Other contagious diseases*. There were 65 deaths from other contagious diseases against 192 in the previous year, but no details are available.

**BOVINES.**—*Rinderpest*. This disease was prevalent in all districts except the Naga Hills, and caused 29,808 deaths against 20,817 in the previous year. The heaviest mortality was reported from the district of Goalpara. Here few of the outbreaks were reported at the time of occurrence.

*Foot-and-mouth disease*. 5603 deaths have been reported from 9 districts against 5737 from 10 districts. It has been previously noted that few cattle actually die from the disease, but the sequelæ of the disease (poisoned and maggot-infested wounds) kill a considerable number.

*Hæmorrhagic Septicæmia*. There were 5525 deaths reported from 9 districts; in the previous year 4245 deaths from the same number of districts. Diagnosis was confirmed by microscopic examination in the districts of Cachar, Sylhet, Goalpara, Kamrup, Sibsagar, and Lakhimpur.

*Black-quarter*. This disease was reported from 4 districts and caused 483 deaths; in the previous year 241 deaths from the same number of districts were reported. No report of the prevalence of this disease was received from any of the districts during the year, and hence no reliance can be placed on the figures reported.

*Anthrax*. 2748 deaths were reported from 9 districts. In the previous year 1839 deaths were reported from 8 districts. Diagnosis was confirmed by microscopic examination in the districts of Cachar, Sylhet, Goalpara, Kamrup, Nowgong, Darrang, Sibsagar, and Lakhimpur.

From *other contagious diseases* 11,187 deaths were reported from 10 districts against 12,073 deaths from 9 districts in the previous year.

*Contagious diseases amongst other animals*. 5243 deaths were reported from 9 districts. In the previous year 2718 deaths were reported from the same number of districts. No information in detail is available regarding these diseases.

#### PREVENTIVE INOCULATION.

Inoculation was undertaken in 621 outbreaks of Rinderpest in 19 subdivisions. In these outbreaks 8956 animals died before inoculation; 38,295 animals were inoculated, of which 346 deaths were subsequently reported. In the previous year inoculation was undertaken in 348 outbreaks in the same number of subdivisions. In these outbreaks 9633 animals died before inoculation, and 29,986 were inoculated. There were 571 deaths reported amongst inoculated animals.

There was thus an increase of 8309 inoculations over that of the previous year.

*Anthrax*. 88 outbreaks of suspected Anthrax were reported, and the disease was definitely diagnosed by microscopic examination in 56 outbreaks.

Inoculation was performed in 60 outbreaks. In these outbreaks 18 equines, 638 bovines, and 4 others died before inoculation; 462 equines, 4504 bovines, and 184 others were inoculated, of which 18 bovines are reported to have died subsequently. In the previous year inoculation was performed in 46 outbreaks, in which 3814 animals were inoculated, of which 6 died subsequently from this disease.

*Hæmorrhagic Septicæmia*. 33 specimens from suspected cases were received at headquarters for microscopic examination. In 28 cases disease was confirmed. Inoculation was performed in 17 outbreaks in 11 subdivisions. In these outbreaks 157 bovines and 41 others died uninoculated, and 20 equines; 2092 bovines and 147 others were inoculated, of which 5 bovines are

reported to have died subsequently. In the previous year inoculation was undertaken in 13 outbreaks, in which 2216 animals were inoculated.

The total number of outbreaks where inoculation was undertaken during the year was 698, in which 9814 animals are reported to have died before inoculation. The total number of animals inoculated was 45,704, of which 369 animals died subsequently. In the previous year inoculation was carried out in 407 outbreaks, in which 10184 animals died before inoculation and 36,016 animals were inoculated, of which 578 subsequently died.

#### *Itinerant Assistants' work.*

The Assistants were 36 in number against 34 in the previous year. They visited 6685 villages and treated 10,562 animals for contagious diseases and 39,156 animals for non-contagious diseases. In the previous year 6729 villages were visited, 25,593 animals were treated for contagious diseases and 34,912 animals were treated for non-contagious diseases.

#### VETERINARY HOSPITALS.

*Gauhati Veterinary Hospital.* 170 equines, 634 bovines, and 237 others were treated as in and out-patients, making a total of 1041 against a total of 954 in the previous year. One equine and 35 bovines were treated in the hospital under the Cruelty to Animals Act.

*Silchar Veterinary Hospital.* 124 equines, 876 bovines and 167 others were treated in the hospital, making a total of 1167 against a total of 1478 in the previous year. The decrease is partly due to the demand for the services of Veterinary Assistants in the interior in connection with outbreaks of cattle diseases and partly to the transfer of assistants owing to unsatisfactory work.

*Shillong Veterinary Hospital.* During the year 1183 animals were treated as in and out-patients against a total of 1102 in the previous year. Fourteen bullocks were treated in the hospital under the Cruelty to Animals Act.

#### *Subordinate Establishment.*

The strength of the subordinate staff at the beginning of the year was 3 Inspectors and 32 Veterinary Assistants. During the year 4 new graduates joined the department, one Assistant reverted from, and one was deputed to, military duty, so that at the close of the year the total strength was 3 Inspectors and 36 Veterinary Assistants.

A brief summary of the work done by Veterinary Inspectors, the Staff and Reserve Veterinary Assistants is given below:—

Babu Satya Charan Mukherjee was in charge of the Dibrugarh Circle. He was on privilege leave for 1 month and 15 days and medical leave for 11 days during the year. He was on tour for 194 days and visited and revisited 183 villages and tea estates in connection with enquiries and investigations of outbreaks of diseases and inoculation results, etc. He inspected the Farm bullocks at the Government Agricultural Farm at Jorhat, and breeding bulls and municipal bullocks in various places in his circle. He travelled 2552 miles by rail, 2776 miles by steamer and country boat, and 946 miles by road. He inspected the work of the Assistants at Sibsagar, Nazira, Mariani, Dibrugarh, and Tinsukia 4 times each; Tezpur, Mangaldai, Jorhat, Golaghat and Badlipar 3 times each. Behali and North Lakhimpur twice each, and Kohima once.

Babu Guru Prasanna Sen was in charge of the Silchar Circle throughout the year. He was on tour for 157 days and travelled 2276 miles by rail, 1832 miles by road, and 382 miles by boat. He visited and revisited 116 villages and tea gardens in investigation of cattle disease. He inspected the work of the Assistants at Silchar, Karimganj, Patharkanki, and Habiganj 5 times

each; Hailakandi, Sylhet, Maulvi Bazar and Second Veterinary Assistant, Silchar, four times each, and Srimangal thrice.

Babu Srish Chandra Ghose was in charge of the Gauhati Circle throughout the year, and he also held charge of Dibrugarh Circle during the absence on leave of the permanent incumbent. He was on tour for 149 days, visited 118 villages and tea estates in connection with outbreaks, etc. He travelled 2990 miles by rail, 606 miles by steamer and 1491 miles by road.

He inspected the work of Dhubri, Bilashipara, Gauhati, Nalbari Barpeta and Nowgong four times each; Goalpara three times, and Shillong twice during the year under report. During the year he inspected the Upper Shillong Farm. The breeding bulls in his circle were inspected by him. While at headquarters he assisted in the Laboratory and Hospital work.

Babu Bhudhar Chandra Chatterjee was the Staff Assistant during the year. He has been on privilege leave for three months from 16th March, 1918, Babu Hem Chandra Sen, Veterinary Assistant, Shillong, officiated in his place. His duties were the same as in previous years—receiving, despatching, and keeping accounts of Sera and stock of inoculation outfits, etc., in assisting in the Laboratory, and attending in and out-patients at the hospital.

The names of the following Assistants are noted for the interest and care they have taken in their professional work during the year:—Staff Veterinary Assistant Babu Bhudhar Chandra Chatterjee, Veterinary Assistants Babu Hem Chandra Sen, Shillong and Maulvi Syed Ataul Haque, Mariani.

#### *General Remarks.*

The following Veterinary Inspectors are mentioned as having carried out their duties in a satisfactory and competent manner:—Babu Guru Prasanna Sen, Veterinary Inspector, Silchar Circle, and Babu Srish Chandra Ghose, Veterinary Inspector, Gauhati Circle.

There has been a further increase in the number of cases of Anthrax. This is not surprising considering the common procedure in the disposal of carcasses. These are left often where they die, to be devoured by vultures and jackals, and consequently the soil becomes heavily infected. It cannot be too strongly stated that in all cases of sudden death the carcass should be buried deeply without skinning it or cutting it in any way.

The question of sending a number of Assistants to the College annually for a course of post-graduate training will have to be considered. Most of the Assistants are in isolated posts where they have little or no opportunity to keep their professional work up to date, and where they are inclined to forget much which is essential.

During the year the "Manual of Cattle-diseases" in India, by Col. Walker, C.I.E., was translated into Assamese, and a limited number of copies were distributed.

Five Assistants from this Department are still serving with the Army Veterinary Corps. The Head Clerk and Third Clerk left temporarily to join the Military Accounts Department. Babu Basanta Kumar Chakrabarty was placed in charge, and the work has been carried out efficiently and satisfactorily.

W. HARRIS,  
Supt., Civil Vety. Dept., Assam.

Why do breeders persist in calling the breed "Holstein Friesian"? The Holstein cattle are red-and-white, and of a different type altogether. The Friesian cattle derive their name from the Dutch province of Friesland, not far from East Frisia, which is in Germany.—*Live Stock Journal.*

## ANTHRAX.

The following is from the Annual Report of the Chief Veterinary Officer, Board of Agriculture, for 1917.

"During the calendar year reports were received in relation to 2229 suspected outbreaks, of which 423 were confirmed by tests for diagnosis at the Laboratory—201 in England and 222 in Scotland.

The number and species of animals affected were?—cattle 451, horses 3, sheep 3, pigs 28: total 485, or 1·15 animals per outbreaks.

The disease occurred twice on 17 premises and 3 times on 4 premises. That is to say, in 25 outbreaks on 21 premises disease may have arisen from a previous case in the same year. In all, 80 outbreaks (18·9 per cent.) occurred on premises on which anthrax was known to have occurred in former years. The number of premises on which disease occurred during the year was 398.

With regard to the 343 outbreaks which occurred on previously clean premises, inquiries pointed to the following being the probable source of origin:—

- |   |     |
|---|-----|
| 1. Effluent from tanyards or other industrial undertakings getting into streams ... | 2   |
| 2. Feeding of infected carcase offal to pigs, etc. ...                              | 1   |
| 3. Use of imported feeding stuffs ...   | 203 |
| 4. Use of artificial manures of animal origin on the land ...                       | 34  |
| 5. Use of both imported feeding stuffs and artificial manures ...                   | 49  |
| 6. A recent death, not reported, but not improbably anthrax ...                     | 10  |
| 7. No explanation obtainable ...  | 44  |

In 26 cases the disease was found to exist in carcases which had reached slaughterhouses or knackers' premises, and, in an additional 46 cases, the deceased animals had been bled, opened, or dressed before the disease was diagnosed, the total number of carcases involved being 73. That means that, approximately, 15 per cent. of the animals affected with this dangerous disease were not reported as affected until their carcases were caught, as it were, at knackers' yards or slaughterhouses. This is very unsatisfactory and calls for firm action by Local Authorities when cases are brought to light. Eight human beings developed anthrax, one of whom appeared to have contracted the disease whilst handling affected pigs with a view to examining their throats: the others probably became infected as a result of slaughtering affected animals or cutting affected carcases.

The number of outbreaks which occurred in Scotland during the year was larger than the number which occurred in England. The incidence of disease in the counties of Banffshire and Aberdeenshire which has been previously commented upon, decreased from 40 per cent. in 1915 to 26 per cent. in 1916, respectively, of the Scottish outbreaks, and fell further during 1917 to 18 per cent. In Scotland, Lanarkshire contributed the largest number of outbreaks, viz., 16 per cent. of the total.

## The Medical Council and General Education.

At a meeting of the General Medical Council on Tuesday, Nov. 8th, at its offices, Hallam Street, W., Sir David MacAlister, the President, remarked upon the progress made by the English Board of Education with the elaboration of its scheme for a general school examination to take the place of multiple examinations in general education with which teachers and scholars have too long been burdened. The four Scottish Universities had received from His Majesty in Council a new Ordinance which establishes a common Entrance Board, empowered to accept the leaving certificate of the Scotch Education Department as the normal quali-

cation for admission to the universities in all faculties. This would liberate the Faculty of Medicine from the obligation, hitherto imposed upon it by Ordinance, to accept a lower standard of preliminary education than that required for degrees in arts and science. "I am," he said, "sanguine enough to believe that the so-called 'Junior' Preliminary Examinations for students of medicine will cease to be recognised in Scotland before they are extinct elsewhere." The large and indeed embarrassing affluence of students much below the age of 18 who were now entering the medical schools made the change more than ever expedient on educational grounds.

He also called attention to the remarkable Memorandum on Medical Education in England, addressed to the Board of Education by Sir George Newman, setting forth the changes that have gradually been made in the duties and responsibilities of the medical practitioner with reference to public health and public administration, and the grounds for requiring that a corresponding change should be made in the manner and matter of his training for their fulfilment.—*The Lancet*.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

Walter Ackroyd, Halifax	£1 1 0
O. S. Broadhurst, Capt. R.A.V.C.	1 1 0
H. E. A. Charles, Lieut. R.A.V.C.	1 1 0
H. Cooper, Lieut. R.A.V.C.	1 1 0
W. W. Lang, Capt. R.A.V.C.	1 1 0
F. W. H. Smith, Bd. of Agric. (1914-18)	5 5 0
R. J. Stordy, D.S.O. Col. R.A.V.C.	1 1 0
C. Tracy, Capt. R.A.V.C.	1 1 0
A. J. Williams, Lt.-Col. R.A.V.C.	1 1 0
A. C. Wilson, Baskhamstead	1 1 0

Previously acknowledged: 1094 19 11

£2109 13 11

## ARMY VETERINARY SERVICE.

War Office, Nov. 29.

The following are among the Decorations and medals awarded by the Allied Powers at various dates to the British Forces for distinguished services rendered during the course of the campaign. The King has given unrestricted permission in all cases to wear the Decorations and medals in question:—

*Conferred by the King of Italy.*

ORDER OF THE CROWN OF ITALY.—OFFICER.

\* \* \* \*  
Lt.-Col. (temp. Col.) F. W. WILSON, C.M.G., F.R.C.V.S.

Extracts from *London Gazette*.

WAR OFFICE, WHITEHALL, Nov. 29.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Lt. to be temp. Capt.:—A. A. Hayman (Oct. 25).

Nov. 30.

Capt. A. S. Lawrie relinquishes the temp. rank of Maj. on ceasing to hold the appt. of Dep. Asst. Dir. of Vety. Servs. (Nov. 12).



Dec. 2.  
Capt. H. Chown is secd. for duty with Egyptian Army (Sept. 24).

**SOUTH AFRICAN VET. CORPS.**

Dec. 3.  
The following temp. Capts. relinquish their commns. on ceasing to be empld. with the Union Imperial Servs., and are granted the hon. rank of Capt.:—W. A. Dykins (Feb. 6); B. Van der Vijver (Feb. 20).

The following officer, who was a prisoner in Turkey, has been released:—Capt. H. Stephenson, M.C., R.A.V.C.

The following casualty is reported:—

DIED—Capt. P. Thexton, R.A.V.C.

**Flavour in Potatoes.**

The following notes appear on the leader page of the Dublin *Farmers' Gazette*. The only point which in any way connects up with veterinary practice is that, as with animals, it costs as much to rear the inferior article as it does to rear a good one. But just now it will appeal to a good many of us in view of the unsatisfactory quality of the table potatoes—landed on us, it is whispered, by some of the “wangling” of the food supplies by the Government.

“At a potato show held across the Channel, a few weeks ago, the winning dishes in order were of the following varieties:—Up-to-date, Prolific, Arran Chief, Stirling Castle, and Great Scot. The result, it appears to us, was based solely on the appearance of the tubers, a method open to the serious objection, that it furnishes no guide to flavour. Everyone admits that the “Date” is about one of the freest-cropping varieties grown, and none more profitable for raising either to market or to feed stock, but no one can claim for it that it has any merit in point of flavour to be regarded as a first-rate table potato. We do not believe that the variety deserves a statement that it is “unfit for human use,” but we are certainly strong on the point that it is absolutely flavourless, and does not appeal to the taste, as the Champion, or some of the old favourites. The verdict of the show referred to was that Midlothian Early as a first crop, British Queen as a mid-season crop, and the Date as a main variety, were all three sorts that could be commended for cultivation. We give full assent to the claims made for the two first-named varieties, but as a cooker for table use, the Date is about the last we would turn to.

Folks in this country are partial to a round-shaped potato; kidney-shaped sorts are not liked for the late crop. The three essentials insisted on in a variety are, that it boils well and evenly, has a firm flesh which becomes mealy when cooked, and, above all, possesses a distinct taste. Depth of eye, fineness of skin, colour of skin and flesh, and other points which are regarded as of importance by English growers are not given much heed to.

It is surprising to what extent potatoes enter into the daily diet of the people here compared with other countries. We are, without question, a great potato-eating people, and it is natural we should have developed a selective taste which will indicate varieties likely to command popular favour. It is on the table or on the plate rather than on the show bench, that a variety asserts its merits; if it pass this test, it can be assured a place in the potato field until something better supplants it.

**Personal.**

Ald. T. CHAMBERS, M.R.C.V.S., has just completed a very strenuous year as Mayor of Dudley. In that busy industrial town Mr. Chambers has carried on his profession for about forty years, and is well known in the Midlands not only as a Veterinary Surgeon but also in the hunting field. He rides to the Albrighton and Albrighton Woodland hounds, and some years ago was Master of a Local Drag Hunt. His Mayoralty of Dudley was a very popular one, and no Chief Magistrate of the ancient town has had a busier time. He had a great deal to do with the organisation of three very successful efforts for raising money for the war. The Tank “Julian” visited the town and well over a million pounds were deposited. Then followed a big scheme in the shape of a Market Sale to raise money for the Local Prisoners of War, with the result that the remarkable sum of £12,000 was raised. The Market Sale was opened by the Duke of Cornwall, and Ald. Chambers has very pleasant recollections of his association with His Royal Highness on that occasion. The third effort was “Feed the Guns,” and very considerably over a million was invested by people of Dudley and the locality. In his Mayoral social duties Ald. Chambers has been greatly assisted by Mrs. Chambers. One of the Alderman's sons, Frank, is a Major in the R.A.V.C. Another, Norman, a Lieut. in the Royal Naval Division, was wounded at the Dardanelles, and the third, Stanley, also joined the colours, and met with an accident whilst training. Amongst other things Ald. Chambers is a prominent Worcestershire Freemason: and years ago was attached to the Yeomanry, in connection with which he won many prizes.

**OBITUARY.**

THOMAS COOPER, M.R.C.V.S., Ribbleson, Preston.  
Graduated, Edin: April, 1873.  
Mr. Cooper died 15th November, aged 70 years.

P. THEXTON, M.R.C.V.S., Pontefract.  
L'pool: July, 1906.  
Death is reported whilst on army service.

**The late Mr. Robert McNae.**

Mr. McNae, of Rosemount, Maxwelltown, who was 71 years of age, had been in a poor state of health for a considerable time past. He was a native of Maxwelltown, and spent practically the whole of his professional life in the burgh, where, in addition to carrying on a large and ever-extending practice, he was able to devote much of his ability to public affairs. For over twenty-five years he was a member of Troqueer School Board, on which he rendered much valuable service, retiring only a year or two ago owing to the state of his health. He was also for many years one of the governors of Dumfries Savings Bank. A gentleman who stood high in his profession, of strict integrity and straightforward and genial disposition, he was followed in his retirement with the good wishes of a wide circle of friends, whose respect and esteem he enjoyed, and who will mourn his death. Mr. McNae is survived by his widow and two sons and two daughters.—*Scottish Farmer*.

### The outbreak of Rabies.

A Board of Agriculture enquiry into the rabies outbreak in Devon and Cornwall was held at Plymouth, the committee of investigation consisting of Lord Clinton, chairman, Mr. George Lambert, M.P., and Maj.-Gen. Sir David Bruce, R.A.M.C.

At the opening of the enquiry, Lord Clinton said that rabies could only have got a footing in this country by dogs being brought into it in defiance of the safeguards against disease provided by the Importation of Dogs Regulations.

The Chief Constable of Plymouth, in the course of his evidence, said that the first case came under the notice of the police on August 19th, Dr. Trelawny-Ross reporting that his dog had died under suspicious circumstances.

It had been denied that flying men took dogs across the Channel, but he was positive they did do so, and he thought the disease was brought to Plymouth from abroad. Canadians brought dogs across in the rush during the early part of the war. The public, generally, were conforming with the new regulations.

Supr. Chamings, County Police, said the earliest case of suspected rabies in the country area was reported on July 18th. It was the case of a heifer at Week Farm, Modbury, but rabies was not confirmed. It was not until September 9th that a case of rabies was confirmed at Modbury.

Evidence of the history of the outbreak in Cornwall as far as it could be ascertained, was given by the

Deputy Chief Constable, Mr. Banfield, the opinion being that it came from Plymouth.

Mr. Bloye, F.R.C.V.S., Plymouth, said that as far back as May there were some cases of dropped jaw in dogs in Plymouth, and these in the light of after events looked suspicious.

Replying to Mr. Lambert, witness said he could give instances of dogs having come to Plymouth by both air and sea. The one which came by air he destroyed, and one of the two which came by sea was traced.

Mr. Dunstan, M.R.C.V.S., Liskeard, criticised the Orders issued by the Board of Agriculture in this connection, and asked for something more stringent. He made several suggestions which were noted by the Committee. Power to shoot stray dogs at sight was one of his proposals.

Mr. R. Yeal, H.M. Customs representative, in reply to Lord Clinton, said that there had been a great congestion at the ports, and many dogs were on board ships. There was a possibility that some of the dogs might have landed without the knowledge of the Customs. He made a suggestion that no dog should be allowed on any ship without a licence.

Naval and military representatives spoke of the way in which the restriction orders were carried out at Plymouth. The War Office had issued to the troops abroad orders that no dogs were to be brought to this country. There had been one case of smuggling by a Canadian, and this was effectively followed up by the civil authorities.

It is stated that the latest police reports show that the disease is showing no signs of abating at present.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.		Out- breaks	Slaugh- tered.
	Dogs	Other Animls											
Gr. BRITAIN.													
Week ended Nov. 30	6		2	3			1	3	81	127	7	24	9
Corresponding week in	1917		4	5				3	58	94	10	28	13
	1916		11	15			1	2	33	77	16	58	27
	1915		14	14	8	109			25	49	11	64	302
Total for 48 weeks, 1918	83	3	225	259	3	14	31	92	4023	7495	304	1300	526
Corresponding period in	1917		392	447			25	53	2257	4215	457	2013	951
	1916		497	590	1	24	45	114	1927	4263	263	4057	9044
	1915		528	594	48	669	46	80	1774	11661	188	3714	15888

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Dec. 3, 1918

Counties affected, animals attacked:—Essex 1, Suffolk 2  
Excluding outbreaks in army horses.

IRELAND.	Week ended Nov. 30	Outbreaks						7	1	6
		1	2	3	4	5	6			
Corresponding Week in	1917	...	...	...	...	...	...	16	1	2
	1916	...	...	...	...	...	...	9	3	19
	1915	...	...	...	...	...	...	3	7	18
Total for 48 weeks, 1918	...	2	2	...	...	...	...	95	296	129
Corresponding period in	1917	3	5	...	...	1	1	41	376	1127
	1916	3	7	...	...	...	...	59	415	1710
	1915	2	2	...	...	1	3	68	378	1307

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Dec. 2, 1918  
NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1588.

DECEMBER 14, 1918.

VOL. XXXI.

## RABIES

The report of the Board of Agriculture enquiry into the rabies outbreak, printed last week, contains nothing to surprise veterinary surgeons. It reveals a state of affairs which the profession generally believed to exist, but could not prove. It shows that the outbreak undoubtedly originated in dog-smuggling; that specific cases (which are not in the least likely to be the only ones) of dogs illicitly brought to England both by air and by sea are known to have occurred, and that in consequence the disease has assumed formidable proportions in two counties. All this we were prepared to hear; what concerns us now is how to deal with the position. The Board of Agriculture, though it may not be able to prevent some loss of human life, can be trusted to subdue the rabies already in the country in time; but what is to be done to prevent further importation of disease?

At the present moment, there is probably more danger of importing rabies than at any time during the war. There will certainly be still greater danger of this during next year. The most dangerous time will be when a general demobilisation begins. Then, unless a strict guard is kept, another re-infection of the country is almost certain. How is this to be prevented? We all know what ought to be done; the difficulty is how to do it effectively. Our existing regulations against the importation of rabies are sufficient, and the disease would never have reached us had these not been broken; the point now is to prevent further infringement.

Here the enquiry does not seem to help us much. One witness, a Customs official, suggested that no dog should be allowed on board any ship without a license; and this might aid in detecting dog-smuggling by sea. We are told, too, that the War Office has issued orders to the troops abroad that no dogs are to be brought to this country; but how serious an offence against military discipline is an infringement of this rule held to be? The existing civil penalties for dog-smuggling are altogether insufficient; for the maximum fine under the Act is far too light for an offence which, at present may cost human lives. Our most hopeful lines of action appear to be, (1) to instruct the public as far as possible as to the danger that exists, and, (2) to try to provide more adequate penalties for breaches of the regulations. The sentimentalists who strove so frantically to prevent us from stamping out rabies at the end of last century may again become very audible, and it is probably useless to argue with such people; but the recital of the history of our anti-rabies legislation should save the bulk of the nation from being misled by them.

## AN APPRECIATION OF THE A.V.S.

In a Supplement to the *London Gazette* dated 22nd November, 1918, His Excellency the Commander-in-Chief in India describes the work that has been carried on in India during the first three years of the War. Among other points, he calls attention to excellent work that has been done by the old Volunteer Force which has been reorganised into the Indian Defence Force. Amongst the eight names of this Force that he specially mentions for good services, we note that no less than three are members of the Indian Civil Veterinary Department; these officers are commanding three of the most important mounted units of the force. This large proportion of "mentions" is striking evidence of the capability of our members in filling positions which are outside their professional duties. All three officers were members of the Army Veterinary Department before joining the Indian Civil Veterinary Department.

## A SUGGESTED AGENCY.

The resolution of the Royal Counties Association which appears on p. 196 of this issue, suggests an entirely new departure. That ability to find at once, and with a minimum of trouble and expense, an assistant whose character and capability are guaranteed by the Council R.C.V.S., would, without question, be advantageous to many practitioners. Similarly, to the home coming junior, who is seeking such a position, to be at once placed with a capable, courteous practitioner, who is willing to pay the increased salary which present—and immediate future conditions demand, is a council as near perfection as is humanly possible. There are two views on the question which will require consideration before any definite step is taken in the matter. First there is the ability of the machinery at Red Lion Square to deal with additional work of this sort. It is—or should be, common knowledge that the stress of the last four years has increased the work there enormously—it is now as much as two men can handle effectively. An agency of the kind suggested—even as a temporary measure—would require a good deal of time and attention, and, without foreknowledge, would mean the collection and classification of information from all over the country; and it would entail a certain amount of unpopularity—if the work be done conscientiously. If it is to be a matter of labelling merely, the work would be less—and of less value to the men concerned.

Another matter for consideration is the present means of intercommunication between practitioners

and assistants. Under war conditions, many men have been glad to employ unqualified assistants who in other days would have none of them. A fair proportion of these men are "worth their salt" as assistants—some of them are practically never out of employment. But amongst them, as, indeed, among qualified assistants, there is considerable variety in character and in capacity. The channels by which demand and supply are transacted are various. Not a little is done by representatives of wholesale houses, who are in constant touch with the men. There are also established agencies, and there is frequently intercommunication between the men themselves. In either of these ways a certain amount of information is available which tends to the avoidance of "misfits."

The establishment of an agency at Red Lion Square will necessitate the building up of a card index on the usual lines, such as those in use in "Trade protection" offices.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### DERMO-EPIDERMIC SKIN-GRAFTING IN THE HORSE.

Levene, in 1917, reported an instructive case of this operation to the Central Society of Veterinary Medicine. The subject was a horse suffering from a large wound, irregularly triangular in shape, situated between the point of the right haunch and the hip joint. This wound was 20 centimetres long, 8 centimetres wide at its widest part, and an average of 3.5 centimetres elsewhere. This represented an ample wound surface, with considerable loss of substance. Although the wound had undergone various treatments for two months, it showed no tendency to cicatrise.

A skin-grafting operation was performed on August 3rd. Nine pieces of skin, taken from the thin skin of the flank on the same side, were grafted upon the wound by the following technique. The region from which the grafts were to be taken was shaved, and it and the wound were washed with ether. The first excavation, of from 8 to 11 millimetres in diameter, was then made with the knife between the fleshy granulations of the wound surface, its edges being formed by these granulations and its base by the aponeurotic or muscular surface of the wound. A skin graft, taken with a sharp knife and tooth forceps, was immediately deposited in this excavation, in which the blood was accumulating. This graft was from 6 to 8 millimetres in diameter, and was dermo-epidemic, being composed of epidermis and the major portion of the dermis. It was cut transversely to the dermis, and was bleeding when deposited in the excavation, as was also the latter. Once deposited in the excavation, the graft became fixed there by blood coagulation.

When all the nine grafts had been thus inserted, the wound was carefully covered with an aseptic protective covering, which was fixed to the skin

with collodion. This was removed eight times during the following month; and at each removal the wound was cleansed with compresses of sterile gauze soaked in warm sodium chloride solution of 5.75 per 1000 in strength, and a new and similar protective dressing was applied. At each removal a progressive diminution of the wound surface was observed, and finally, on September 3rd, the epidermal repair was complete.

By skin grafting Levene thus obtained (1) the cicatrization in 30 days of a wound which, for the two months preceding the operation, had shown itself absolutely refractory to treatment, and (2) a cicatrix which was flexible, and not adherent to the subjacent parts.—(*Revista de Higiene y Sanidad Pecuarias*).

##### A CASE OF TRICHINOSIS IN THE CAT.

Some years ago Ciurea reported a case of extensive trichinosis observed in Roumania in a cat fourteen years old. The animal was destroyed to prosecute parasitological investigations. The external surfaces of the superficial muscles presented numerous small whitish punctiform plates, situated between the muscular fasciculi, and some five millimetres distant from each other. They were perfectly visible to the naked eye, chiefly on account of the extreme thinness of the animal. The pillars of the diaphragm and the muscles of the thoracic and abdominal walls, on their internal aspects, presented the same alterations, which were also found in the depths of the different muscular masses. The viscera showed no lesions.

Microscopical examination showed that these formations, which at first were taken for sarcosporidia, were in fact encysted muscular trichinae. Their enveloping membranes were not yet completely calcified, and living larval trichinae could be demonstrated.

It appeared that the cat, when young, had been an excellent rat. It had probably, therefore, become infected through eating the flesh of trichinous rats.—(*Revista de Higiene y Sanidad Pecuarias*).

[There is not much in the literature concerning trichinosis in the cat; and this animal is not regarded as being very susceptible to infection.—*Transl.*]

##### THE CERUMINOUS GLANDS OF THE PIG AND CAT.

A. Mensa, having studied the ceruminous glands of the auditory passages in the pig and cat, communicated his results to the *Archivio Scientifico di Medicina Veterinaria* in 1914. The ceruminous glands are of two kinds, viz., (1) the tubular, which are analogous to the sudoriparous glands of the common integument, but adapted to the production of different material, and (2) the clustered glands, analogous to the cutaneous sebaceous glands, and with the same histological constitution. The numerical relation of the two varieties of glands varies according to the species of animal.

The tubular glands are absent in some of the mammalia: but both varieties are encountered in

the cat and the pig. In the cat they are in almost equal proportions, except as regards the size of elements. In the pig there is an evident numerical disproportion, the sebaceous glands being distinctly the more numerous.

For this reason, a uniformity of relations is observed in the cat which does not exist in the pig. The author finds that the glands in the cat are in corresponding series, the sebaceous glands being superposed to the tubular ones: one group of tubular glands corresponds to every group of sebaceous glands, and their relations of contiguity do not vary throughout. In a few instances there are exceptions to this rule, from absence or a lesser number of the tubular glands.

The sebaceous glands are always very well developed in the cat. The disposition of these glands corresponds to that of the analogous cutaneous glands. The tubular glands are of great extent and very ample. Their excretory canals, according to Lunghetti, constantly open into the hair follicles. Mensa, however, believes that in the majority of instances they open on the cutaneous surface, and less frequently in the hair follicles.

The characters described as pertaining to the ceruminous glands in the cat are also of general application to the glands in the pig; but there are some exceptions. In summarising these, Mensa says that the glands in the pig are very inferior to those of the cat in the number and in the extension of the glandular groups: nor are the glandular elements so well developed. The tubular glands in the pig are of less ample lumen and are less deeply situated than in the cat, in which animal they occupy the hypodermic connective zone bordering upon the perichondrium. In the pig, the presence of an adipose zone behind the tubular glands is noticed. In the pig, even more frequently than in the cat, the tubular glands open freely on the cutaneous surface.

The very debatable question of the genesis of the cerumen is connected with the existence of these two varieties of glands in the auditory passage. Mensa thinks that the sebaceous glands discharge the protective function of the passage and of the tympanic membrane, while the other glands only produce the yellow-grey pigment which imparts the colour to the cerumen, and also a liquid secretion which keeps the area of the external passage humid.—(*Revista de Higiene y Sanidad Pecuarias*).

#### SWINE FEVER.

[The following is the report of the Chief Vet. Officer B. of A. The brief note which we printed earlier (Oct. 26) is a summary of the information, but it is thought that many practitioners may prefer to have an opportunity to review the fuller evidence contained in the report.]

The number of suspected outbreaks reported in the statistical year 1917 was 10,261, and the number confirmed by combined inquiry in the field and at the Laboratory was 2104. This is a decrease of 2227 as compared with 1916.

The introduction of serum treatment and the organisation for its application as a policy were dealt with in the Annual Reports for 1915 and 1916.

A further report on the results of treatment is now submitted based upon records compiled by the Veterinary Department. The period extends from October, 1916, to Sept. 1917.

Certain records were also made of the outbreaks which occurred in the same period but in which serum was not administered, and the results in the serum and non-serum outbreaks, respectively are compared.

The number of outbreaks confirmed in the second twelve months of the serum treatment was 2531. Serum treatment was accepted in 1147 cases. Owners declined the treatment in 263. They preferred to slaughter for food immediately all healthy pigs in 322 instances. Conditions were unsuitable for treatment in 564 cases. No pigs remained alive on the premises for treatment at the completion of diagnosis in 220 outbreaks. Treatment was not offered in 15 cases.

The proportion of suitable cases (*i.e.*, cases in which it was not certain that infection had already spread to all the pigs) in which serum treatment was accepted was 80.5 per cent.

The total number of pigs involved in the 1147 serum cases was 42,504, an average of 37 pigs per herd, of which 31.2 per cent. died of swine fever, 1.2 per cent. died of other causes, 25.7 per cent. were killed for food, and 41.9 per cent. were freed at the end of the outbreak.

The 42,504 pigs consisted of 35,882 original stock, 676 moved on, and 5946 born during isolation. Of the original stock, 3553 (9.9 per cent.) were dead of the disease, and 713 (2 per cent.) were killed for food before treatment was adopted, the remaining 31,616 (88.1 per cent.) being isolated. In the previous year 1.3 per cent. fewer pigs were dead or were killed for diagnosis, but under the procedure then in force, and which ceased during the period, the Board slaughtered with compensation 4351 pigs (6.5 per cent.) *i.e.*, 15.1 per cent. of the stock had been disposed of by death or slaughter before treatment began in the previous year, compared with 9.9 per cent. for the period under review, when 6 per cent. more of the pigs were isolated. During isolation the number of pigs was increased 18 per cent. by birth and 2.1 per cent. by pigs being moved on to the infected premises, bringing the total number of pigs involved during isolation to 38,238, of which 24,952 (65.2 per cent.) were treated with serum, 8599 (22.5 per cent.) apparently healthy pigs were not treated for various reasons, and 4687 (12.3 per cent.) were already affected with swine fever.

Considered as a whole, the disposal of the pigs involved during isolation was as follows: 25.4 per cent. died of swine fever, 1.4 per cent. died from other causes, 26.6 per cent. were slaughtered for food, and 46.6 per cent. were freed.

The 38,238 pigs involved during isolation were composed of: (a) 3213 breeding pigs (8.4 per cent.) of which 436 (13.6 per cent.) died of swine fever, 11 (.3 per cent.) died of other causes, 804 (25 per cent.) were killed for food, and 1962 (61.1 per cent.) were freed; (b) 23,974 fattening pigs and stores (62.7 per cent.), of which 6479 (27 per cent.) died of swine fever, 165 (.7 per cent.) died of other causes, 8503 (35.5 per cent.) were killed for food, and 8827 (36.8 per cent.) were freed; (c) 11,051 suckers (28.9 per cent.), of which 2774 (25 per cent.) died of swine fever, 366 (3.3 per cent.) died of other causes, 877 (8 per cent.) were killed for food and 7034 (63.7 per cent.) were freed.

The following information has also been derived from records kept during the same period in connection with the 1384 outbreaks in which serum treatment was not applied. The total number of pigs involved in these outbreaks was 23,452, an average of 17 pigs per herd, of

which 10,121 (43·1 per cent.) died of swine fever, 9292 (39·6 per cent.) were killed for food, and 4039 (17·3 per cent.) were freed. These figures show increases of 11·9 per cent. and 13·9 per cent. in the death-rate and pigs killed for food respectively, and a decrease of 24·6 per cent. in the pigs freed, as compared with the figures for the serum-treated outbreaks. As the pigs known to have died from causes other than swine fever is less than 2 per cent. they have been included in the deaths from swine fever throughout the non-serum outbreaks. Of the 23,452 pigs, 21,585 were original stock, 1515 were born and 352 were moved on. Of the original stock 3674 (17 per cent.) died or were killed for diagnosis, and 364 (1·7 per cent.) were killed for food before isolation, the remaining 17,547 (81·3 per cent.) being isolated. The originally isolated stock was increased 8·6 per cent. by births (18 per cent. in serum outbreaks) and 2 per cent. by pigs being moved on, a total of 19,414 pigs being involved during isolation. Of these, 6447 (33·2 per cent.) died, 8928 (46 per cent.) were killed for food, and 4039 (20·8 per cent.) were freed. The records for this class of outbreak show that of the originally isolated stock 5639 (32·1 per cent.) were slaughtered for food during the first ten days of isolation in the non-serum outbreaks. The importance of this is that the death-rate from swine fever, though high, was kept down by slaughtering and salving the pigs exposed to infection, a useful method if the pigs are ripe and not breeding stock. It would appear also from the observations that a large number of affected pigs were killed for food. The 19,414 pigs involved during isolation comprised 1386 breeding pigs (7·2 per cent.) 14,787 fattening and stores (76·1 per cent.) and 3241 suckers (16·7 per cent.).

The proportion of breeding stock involved in untreated outbreaks was 1·2 per cent. less than in the serum outbreaks, and the pigs were accounted for thus:—Died 304 (21·9 per cent.), killed for food 609 (43·9 per cent.), freed 473 (34·2 per cent.), as compared with the breeding stock in serum outbreaks, there were increases of 8·3 per cent. and 18·9 per cent. in the death-rate and number of pigs killed for food respectively, and a decrease of 26·9 per cent. in the pigs freed.

The fattening of stores, which numbered 14,787, constituted a higher proportion of the isolated stock by 13·4 per cent. than in the serum outbreaks; 4656 (31·5 per cent.) died, 7937 (53·7 per cent.) were killed for food, and 2194 (14·8 per cent.) were freed. These figures, compared with the results in the serum outbreaks, are 4·5 per cent. and 18·2 per cent. higher as regards the death-rate and the number of pigs killed for food respectively, and lower by 22 per cent. as regards pigs freed.

Compared with the serum outbreaks, the proportion of suckers which, in untreated outbreaks numbered 3241, was 12·2 per cent. lower. These pigs were disposed of as follows:—By death 1487 (45·9 per cent.), by slaughter for food 382 (11·8 per cent.), by freedom 1372 (42·3 per cent.). These percentages are 20·9 and 3·8 per cent. higher as regards the death-rate and the number of pigs killed for food respectively, and 21·4 lower as regards the freed pigs in comparison with the serum outbreaks.

For convenience, suckers have been referred to under that title throughout this report, but all were not actually "suckers" throughout the isolation period.

*Scene: A Court in a Western State, U.S.A.*

*Prosecuting Attorney:* "Your honour, that bull-pup of yours has chewed up the court Bible."

*Magistrate:* "Well, make the witness kiss the bull-pup, then. We can't adjourn the court for a week just to hunt up a new Bible."

## ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

At the meeting on Friday last of the Royal Counties V.M.A., the President, Mr. J. Willett, proposed: "That the Royal Counties Veterinary Medical Association agree that a resolution should be forwarded to the Royal College of Veterinary Surgeons urging upon them the advisability of keeping a Register of Practices for Sale, Assistants wanting situations, also vacancies for assistants, whereby those members returning to civil life from the Army may have the opportunity of being placed in suitable employment, and that a small charge be made to cover expenses."

This resolution was unanimously agreed to by the members.

Dec. 11.

G. P. MALE, Hon. Sec. and Treas.

## ANNUAL REPORT OF THE VETERINARY DEPARTMENT, BRITISH EAST AFRICA, FOR THE YEAR ENDING 31ST MARCH, 1918. [Abridged].

The following constituted the staff of the Veterinary Department during the year 1916-17:—

*Chief Vety. Officer*—R. J. Sturdy.

*Dep. Chief Vety. Officer*—W. Kennedy.

*Vety. Pathologist*—R. E. Montgomery.

*Vety. Officers*—R. Edmondson, H. Brassey Edwards, F. J. McCall, O. Dixon, R. C. Wheeler, W. W. Henderson, G. N. Hall, F. J. S. Sheedy, A. W. Carter, T. C. Bradshaw, M. H. Reid.

*Assist. Vety. Pathologist*—W. Kearney.

*Indian V. Assists.*—Ghulam Hassan Shah, Khalilur Rahman Khan, Mohamed Ramzan.

A Permit Officer, two Clerks, three Live Stock Inspectors.

## DISEASES OF CATTLE.

*East Coast Fever.* Owing to the spread of East Coast Fever on the Uasin Gishu Plateau and the absence of many of the Settlers on active service, it has become necessary to modify the quarantine regulations in that district.

New rules are being drafted on this subject and it is hoped to publish these early next year.

The returns of the Government Analyst show that over one hundred dipping tanks are now in use. With the exception of a tank built by the military authorities at Athi River, no Government dipping tanks were erected during the year.

Considerable losses among cattle drawn from the Kitui district have occurred through the animals having to pass through the heavily infected area of Machakos on their way to Nairobi. The erection of a dipping tank in the neighbourhood of Machakos should considerably reduce this mortality.

The attention of all stock owners is again directed to the necessity of keeping careful records of the contents of dipping tanks, as several cases have come under notice, where, owing to want of proper supervision, the dipping fluids sent for analysis have shown enormous variations in strength. In the majority of these cases the trouble has been traceable to surface water gaining access to the tanks or to serious miscalculations in estimating the quantity of dip to be added.

The number of cattle, the property of Settlers, admitted to the East Coast Fever Testing area at Kamiti during the year was 264. The number of deaths was seven.

Dipping rules have been published which permit of freer cattle movement in the settled areas of the Protectorate than has been possible in the past.



During the year 984 dip samples were analysed as compared with 650 in 1915 and 480 in 1914.

The results of the analyses are as follows:—

Within 10 % of correct strength	percent 58.8
11 to 20 % above or below strength	22.3
Over 20 % above or below strength	18.9

**Trypanosomiasis.** The quarantine on the Thika district established in 1915, has now been confined to two farms. The measures adopted in dealing with this outbreak were briefly as follows:—"All infected farms were quarantined; microscopical examinations of the blood of all cattle in the area were carried out periodically; all infected animals were slaughtered and the owners were paid compensation." The number of animals found to be infected and destroyed was 249.

The trypanosomes found were of the Vivax and Dimorphon varieties, and the tsetse flies caught were *Glossina brevipalpis*, *G. longipennis*, and *G. pallidipes*. Only one specimen of each was found in 1½ years.

The bulk of the evidence goes to prove that infection in most cases occurred through the medium of tsetse flies in the neighbourhood of Ithanga Hills or at the outspan on the Saba-saba River on the Fort Hall road; but infected animals were found on a few farms where infection apparently could only have occurred between these farms and Thika Railway Station—a route which is tsetse-fly-free. Stomoxys may have been the transmitting agents in these cases.

**Anthrax.** Only a few outbreaks came under notice in the settled areas during the year. These occurred in the Nairobi and Kisumu districts.

**Pleuro-pneumonia** has spread considerably in the Masai Reserve and two outbreaks have occurred on Europeans' farms.

The spread of the disease in the Reserve has resulted from the movement of large numbers of slaughter oxen purchased for the Military authorities, and one outbreak on a European's farm was traceable to the same source. The other outbreak was apparently traceable to the introduction of cattle brought from a farm adjacent to the Masai boundary.

Infected animals were found in the vicinity of Ngong Station, and as these cases were a menace to the European-owned cattle in the neighbourhood, it was decided to slaughter off the infected animals and all in-contacts. The same procedure was adopted in the cases of the outbreaks on European farms.

Veterinary surveys are being carried out in the Masai Reserve with a view to ascertaining the extent and distribution of the disease, and when these are completed, it is proposed to form quarantine camps and carry out inoculations. These operations will require a large staff, and it is doubtful if much can be done until the cessation of hostilities. Precautions have been taken to prevent the further spread of the disease from the Reserve by prohibiting the movement of cattle therefrom.

Pleuro-pneumonia has been very successfully dealt with in the Bechuanaland Protectorate and the Chief Veterinary Officer of that Protectorate (Mr. W. H. Chase) has been good enough to supply full details of the methods adopted there. These details will be of great assistance in dealing with the disease in the Masai Reserve, when a staff is available.

**Contagious Abortion of Cattle.** A circular was issued by the Veterinary Department in January to all Farmers' Associations with a view to ascertaining the extent and distribution of contagious abortion. The information obtained in reply to this circular has proved of considerable value. It appears certain that this disease is widespread in most of the native reserves of the Protectorate and has been known to the natives for generations past. Although the disease usually pursues a mild course in native cattle, stockowners are

again warned of the serious results which are likely to follow if it is introduced amongst grade stock.

A pamphlet on this disease was issued by the Veterinary Department towards the end of the year and it is hoped that the information and advice contained therein will material assist stockowners in preventing or eradicating the disease.

**RINDERPEST.** During the year outbreaks of this disease have occurred in 13 districts.

When the staff was available the disease was suppressed by the double inoculation method. In February the settlers' and certain squatters' cattle were double inoculated in the Lumbwa, Muhoroni, Fort Ternan and Songhor districts. In all, 7917 cattle were inoculated, including 2450 squatters' cattle. The deaths numbered 172, of these 29 deaths are reported to have been due to Anaplasmosis, 9 to Red water and the remainder to Rinderpest. In many instances the squatters on the farms in these districts refused to have their cattle inoculated.

During the early part of the year several outbreaks of rinderpest occurred in the Nakuru district which were promptly eradicated by the use of serum. Two months later a second outbreak occurred which was dealt with in a similar manner. Three months later four outbreaks occurred simultaneously at distances of fifteen miles apart.

There is abundant evidence to show that this outbreak was directly due to the game, as buffalo, eland, reedbuck, and bushbuck were all found dead of this disease. It was decided to undertake double inoculation of the whole district, and I am glad to report that the measures taken were most effective and that the disease disappeared entirely after the inoculation. Approximately 14,500 cattle were inoculated with the simultaneous method of blood and serum and 12,000 in addition received serum only.

Great difficulty was experienced in ascertaining the precise losses in connection with the double inoculation but the Veterinary Officer in charge reports that deaths directly due to double inoculation were ½ per cent. and 2 per cent. of animals aborted.

An outbreak at Ravine in native cattle was eradicated by serum inoculation and 2256 cattle were inoculated.

The Civil Authorities of the Union of South Africa were notified of the spread of rinderpest in German East Africa towards the northern borders of Rhodesia.

The Veterinary Laboratory at Kabete have made the following issues of anti-rinderpest serum during the year:—

Civil	...	104,098 doses.
Military	...	215,000 "
Nyassaland	...	30,240 "
(On hand)	...	(47,762 ")
Total	...	397,602 "

Serum manufactured during the year	266,096 doses.
Balance on hand from last year	131,506 "

Total ... 397,602

**Blackquarter.** Outbreaks in cattle were reported during the year at Elmenteita, Nakuru, Muhoroni, Gilgil, and in Native Reserves at Nyeri, Meru, and Machakos.

At the Government Farm, Kabete, 721 cattle were vaccinated without mortality.

#### EQUINES.

**Epizootic Lymphangitis.** Several cases occurred in and around Nairobi, and one case at Fort Hall. Treatment with Potassium iodide has proved successful in many cases, but owing to the war the cost of this drug has

greatly increased with the result that, in many cases, the treatment is not carried on for a sufficient length of time to ensure a cure.

*Ulcerative Lymphangitis.* Cases have frequently come under notice throughout the Protectorate.

Although the causal organism is ubiquitous and the disease was in consequence deleted from the list of notifiable diseases under the Diseases of Animals Ordinance, it was found that, as soon as the quarantine restrictions were relaxed, many owners of horses and mules ceased to treat infected animals with the result that many animals were found in work with discharging sores all over their bodies. These animals were considered to be a source of danger to healthy animals, so it has been decided to make this disease notifiable once more.

*Horse Sickness.* The past year has been a particularly bad one for horse sickness, and districts hitherto known to be free from this disease have been visited by the epizootic.

**SHEEP AND GOAT.** As in former years the principal diseases of the sheep and goat which came under notice were Sheep and Goat Scab, Nairobi Sheep Disease, contagious foot rot, verminous gastro-enteritis, and contagious pleuro-pneumonia of the goat.

Owing to the difficulty experienced by many sheep farmers in eradicating sheep scab from their flocks a pamphlet on sheep dipping and the eradication of sheep scab has been written and will be published early next year by the Veterinary Department.

*Meat Inspection.* The following are the Nairobi Slaughterhouse returns for the past financial year, together with the three preceding years:—

		Bullocks.	Sheep.	Pigs.
1917-18	Slaughtered	3014	23,390	540
	Condemned	74	84	nil
1914-15	Slaughtered	2291	35,332	160
1915-16	"	4749	30,965	337
1916-17	"	3014	23,390	540

A new slaughter-house for pigs has been erected during the year and the inspection of pigs is much more satisfactory.

*Trade Stock.* During the year no outbreaks of disease were noticed among the trade stock arriving at Rumuruti from Northern Frontier District, Boran, Somaliland and Abyssinia. The following statistics are given of animals passing through the quarantine:—Cattle 3358, Sheep and goats 405, Horses 211, Mules 701.

The revenue collected from inoculation fees was Rs. 9323.

The figures show a great decrease compared with 1915-16 in cattle, sheep and goats, but an increase in horses and mules.

*Fort Ternan Quarantine Boma.* During the year 5062 trade cattle from Uganda and the Native Reserves bordering Lake Nyanza, and 5838 military oxen passed through the quarantine boma. All these cattle were double inoculated against rinderpest.

400 cattle were inoculated against blackquarter and 1500 oxen were dipped.

The revenue accruing from inoculation and dipping fees and sale of serum, etc., was Rs. 5253/10.

The number of brands registered under the Registration of Brands Ordinance during the year 1916-17 was 36: transferred 2: cancelled 1.

#### THE PERMIT SYSTEM.

Under the Diseases of Animals Dipping Rules (1916), permits will be granted for cattle which have been dipped for a period of two months at three-day intervals in a standardised dipping fluid to move from an East Coast Fever infected area to a clean area, provided that the animals can enter the clean area within 72 hours of their last dipping.

Permit Issuers will, before granting such permits, ascertain from the District Veterinary Officer or from the Chief Veterinary Officer, Nairobi, if the dipping fluid used for the dipping of the cattle has been regularly tested and kept at standard strength.

The thanks of the Department are due to those gentlemen who have acted as Permit Issuers during the year.

During the year under review practically the whole Veterinary Staff was employed on military duty but, as opportunity offered, every endeavour was made to deal with outbreaks of contagious diseases.

R. J. STORDY, Chief Vety. Officer.

#### The Life-Histories of the Lower Bacteria.

The following contribution to the question of the mutations of bacteria appeared in a letter to the Editor of *The Lancet* some months ago.

"The morphological modifications which appear in *B. typhosus* and some other bacteria, when subjected to particular environments, were studied by W. Murray and myself in 1902 and 1903 in the Gordon Laboratory of Experimental Pathology at Guy's Hospital, and I continued to give a good deal of attention to the subject here during several subsequent years. I am familiar with the 'aberrant' forms described by Dr. Hort. In a short paper published in this Journal (July, 1904), Murray and I drew particular attention to the following forms among those which we had noted: (1) Long unsegmented filaments, (2) filaments with segmentation at one end or in some part of their length, (3) beaded forms (presenting deeply staining beads at intervals along their length), (4) coccoid forms, (5) giant forms, (6) felted networks of filaments, (7) branching filaments.

Somewhat similar results were obtained (with *B. typhosus* and *Vib. cholerae*) by quite different methods by Professor Almquist of Stockholm, who published, in the same year, an account of them.

Murray and I concluded our own description with the following statement:—

"We are not at present prepared to estimate the precise importance of the foregoing observations. . . . But we conclude that the form in which we ordinarily see the *Bacillus typhosus* and some other bacteria in the laboratory is not the only form in which they may appear. Perhaps it may not even be the form in which by preference they exist as saprophytes. Further experiments which are now in progress suggest the possibility of an unsuspected complexity in the life-history of these micro-organisms. . . .

Some of the results of my further experiments were demonstrated in the Pathological Museum of the Oxford meeting of the Association in the summer of 1904, including appearances suggestive of "budding," oval and spherical forms, and the presence of tiny highly motile forms which I called 'dots.' But I have hitherto been unable to convince myself that I had evidence of a complete life-history, or to find a satisfactory method of securing permanent and demonstrable preparations of certain phases. Of this, however, I am certain: that any one who is interested in the matter can easily obtain filamentous forms of *B. typhosus* (and some other members of the typhoid-colon group) which show branching and the formation of lateral buds, by following the methods which Murray and I employed. I have repeated the experiment successfully since the appearance of Dr. Hort's important paper, and it seems probable that what I called 'dots' in 1904 may correspond to his filter-passing forms.

May one venture to dissent from the view expressed in your leading article, which seems to regard the evidence for the existence in this group of bacteria of forms small enough to pass through a piece of porcelain as of greater ultimate importance in pathology than would be the complete elucidation of their general morphology? Such a view is not only open to misinterpretation as a disparagement of a great part of Dr. Hort's work, but it seems to stand in striking conflict with the Euclidean doctrine that of necessity "the whole is greater than its part."—I am, et.,

Oxford, May 29.

E. W. AINLEY WALKER.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918 :—

H. J. Axe, D.S.O.	Lt.-Col. late R.A.V.C.	£1	0	0
A. F. Castle, Capt.	R.A.V.C.	1	1	0
Robt. Daubney, Capt.	R.A.V.C. (1918-19)	2	2	0
L. E. Prichard, Lt.	R.A.V.C. (1918-22)	5	5	0
Previously acknowledged		1109	13	11

£1119 1 11

## ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Dec. 6.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. E. J. Burndred, M.C., to be actg. Maj. whilst holding the appt. of Dep. Asst. Dir. of Vety. Servs. (Oct. 12).

Dec. 7.

Maj. M. St. G. Glasse relinquishes the actg. rank of Lt.-Col. on ceasing to hold the appt. of Asst. Dir. of Vety. Servs. (Aug. 30).

Temp. Capt. S. E. Robson relinquishes his commn. on acct. of ill-health, and is granted the hon. rank of Capt. (Dec. 8).

Dec. 9.

The notifications in *Gazette*, July 13, regarding Capt. T. Bone are cancelled.

Dec. 11.

To be temp. Lieuts. :—W. D. MacCormack (Oct. 14); T. L. Dunn (Oct. 18); B. I. Love (Oct. 24).

Dir. of Vet. Servs.—Col. F. Eassie, C.M.G., D.S.O., from Dep. Dir. of Vety. Servs., and to be temp. Brig.-Gen. (without the pay or allowances of that rank) while so employed (Oct. 12).

The following casualty is reported :—

WOUNDED—Capt. N. V. James, R.A.V.C., attd. R.F.A.

Extract from Sixth Supplement to *The London Gazette*.

WAR OFFICE, WHITEHALL, Nov. 26.

The following despatch from His Excellency the Commander-in-Chief in India on the work of the Army in India and of the Civil Departments of the Government of India and of Civilians in connection with the War has been received from the Government of India :

\* \* \* \*

9. At the outbreak of war, several Volunteer units undertook to replace or supplement, for as long as might be necessary, the Regulars in certain garrisons, in which employment they rendered excellent service. The Volunteer Force, as formerly constituted, has since ceased to exist and has been reorganised as the Indian Defence Force. The passing of the Indian Defence Force Act in 1917, rendered military training compulsory for all European British subjects in India between the ages of 16 and 50, thus bringing their military obligations more into line with those required of their fellow citizens in other portions of the Empire. These increased obligations have been accepted in a soldierly and patriotic spirit, and officers and men have spared no effort to improve their military training. The efforts made to develop and improve this force have been attended with success and, though only recently constituted, it has attained considerable efficiency.

16. A list of those whose services have been of particular value, and whose assistance and work I desire to bring specially to notice, forms the subject of Appendix I. of this despatch.

I have the honour to be, Sir, your most obedient servant,

C. C. MUNRO, General,  
Commander-in-Chief in India.

The following names appear amongst many others :

BLINKINSOP, Maj.-Gen. L. J., D.S.O., British Service.

EVANS, Lieut.-Col. G. H., C.I.E., A.D.C.,

Indian Defence Force.

PEASE, Lieut.-Col. H. T., C.I.E., V.D.,

Indian Defence Force.

WALKER, Lieut.-Col. G. K., C.I.E., F.R.C.V.S.,

Indian Defence Force.

## Milk yields of Goats.

A number of tests have been carried out by the Danish Goat-breeding Committee for the purpose of ascertaining what is the milk yield of goats in that country. A summary of the results is given in the *Journal of the Department of Agriculture* a few months ago.

In all 33 goats were tested, and included 12 representatives of the native Danish breed, 16 of the Saanen or Swiss type, 1 of the Norwegian type, and 4 cross-bred goats. The goats selected for experiment were located in different parts of the country; they were not chosen for any special excellence. The tests were carried out and records kept exactly as in the case of dairy cows.

The result of the tests was as follows :—The Danish goats gave an average yield of 1100 lb. The best goat, a strong six-year-old, gave 1510 lb, and the worst 659 lb. The average fat percentage was 4.1. The Saanen goats gave on an average 1230 lb. The best, a large and powerful animal, six years old, gave 1880 lb, and the worst 686 lb. Fat percentage 4.0. The Norwegian goat gave 992 lb milk, and the cross-breds 976 on an average. The fat percentage was 4.1 both in the case of the Norwegian goat and the cross-breds.

The results were regarded as satisfactory. The outlay on food was generally small, and the goats provided their owners with a nice little surplus in money at the end of the season, in some cases amounting to between £4 and £5. On the basis of these tests, it is calculated that, for the whole of Denmark, the average milk yield of goats is about 794 lb per annum. The Saanen goats are undoubtedly the best milkers on the whole, but they require more care and attention than the native breed, being generally of more delicate build, and having a thinner coat of hair. Accordingly, the native breed is recommended in cases where special care and attention cannot be given.

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.		
	Cases Confrmd		Out-breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.		(b)	Out- breaks (a)	Slaugh- tered.
	Dogs	Other Animls												
Gr. BRITAIN.														
Week ended Dec. 7	3		7	8				1	89	184	13	25	5	
Corresponding week in	{	1917		8	8			1	72	125	18	20	6	
		1916		12	17				46	85	21	54	17	
		1915		18	18	7	32	2	4	34	91	13	62	134
Total for 49 weeks, 1918	66	3	232	267	3	14	31	93	4115	7682	317	1325	531	
Corresponding peried in	{	1917		400	455			25	54	2329	4340	475	2033	957
		1916		509	607	1	24	45	114	1973	4348	284	4111	9061
		1915		546	612	55	701	48	84	†808	†1752	201	3776	16022

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
 (a) Confirmed. (b) Reported by Local Authorities † Counties affected, animals attacked :—London:1  
 Board of Agriculture and Fisheries, Dec. 10, 1918 Excluding outbreaks in army horses.

IRELAND.	Week ended Dec. 7	...	...	...	...	...	...	...	Outbreaks	14	1	...
Corresponding Week in	1917	...	...	...	...	...	...	...	1	19	1	...
	1916	...	...	...	...	...	...	...	1	11	5	55
	1915	...	...	...	...	...	...	...	...	8	2	32
Total for 49 weeks, 1918	...	2	2	...	...	...	...	...	95	310	29	129
Corresponding period in	1917	3	5	...	...	1	1	41	395	197	1127	...
	1916	3	7	...	...	...	...	60	426	293	1765	...
	1915	2	2	...	...	1	3	68	386	233	1339	...

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Dec. 9, 1918  
 Note.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection

## Personal.

MACCANN.—November 20th, at Charleville Parade, Tullamore, the wife of J. S. MacCann, M.R.C.V.S.—twins (son and daughter).

Mr. W. S. KING, M.R.C.V.S., M.B.O., the well-known East London Veterinary Surgeon, has been unanimously elected for the third successive year to the Chair of the Central London Branch of the National Master Farriers' Association. Our readers will remember Mr. King's name in connection with very successful subscription lists for the V.V.B. Fund and the A.V.C. Comforts Fund.

## OBITUARY.

ALBAN BULL, M.R.C.V.S., Hook Norton, Oxfordshire.  
 Graduated, Lond: Dec. 1861.

Mr. Bull died 6th December, aged 80 years.

PATRICK McDONNELL, M.R.C.V.S., Market Sq., Dundalk,  
 Dublin: July, 1910.

Death occurred 21st October, at the age of 30.

RICHARD SAM REYNOLDS, M.R.C.V.S., Knotty Ash,  
 Liverpool. Lond: April, 1862.

Mr. Reynolds' death occurred on Monday last, 9th inst., at the age of 77. He served as member of Council R.C.V.S. 1887-94. He was for many years veterinary superintendent of the Liverpool Corporation, and was one of the founders of the Shire Horse Society and the Royal Lancashire Agricultural Society. He was one of the best judges of draught horses in the kingdom.

AUGUSTUS PHILIP PRESTON, M.R.C.V.S.

Dublin: July, 1917.

Mr. Preston's death occurred at his residence, Mallow, Co. Cork, on Monday, Dec. 2nd. He was the son of Mr. James Preston, F.R.C.V.S., Mallow, one of the best known and most respected veterinary surgeons in the South of Ireland, and had already given promise of following in the steps of his father, socially and professionally.

JAMES BLAKEWAY, jun., M.R.C.V.S., Major R.A.V.C., Red Hill, Stourbridge. Lond: July, 1894.

Major Blakeway died from Influenza, at a Military Hospital in Paris, on the 4th Dec., aged 36 years.

GEORGE EDWARD NASH, M.R.C.V.S., Richmond, Yorks.  
 New Edin: July, 1880.

E. MEASURES CHATTERTON, M.R.C.V.S., East Rudham.  
 Lond: Nov., 1908.

## DEMOBILISATION OF THE R.A.V.C.

To the Editor, "The Veterinary Record."

Sir,—I see from the public press that several doctors have already been released from the R.A.M.C. for return to civil life.

Is it not about time that those in the R.A.V.C. with practices and employments to go to, are released?

When is the R.C.V.S. going to wake up in this matter?

Yours, etc., "DISGUSTED."

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1589

DECEMBER 21, 1918.

VOL. XXXI.

## TRANSITION.

The question of when veterinary surgeons are to be released from the Army is already beginning to be asked, and seems rather premature. General demobilisation can hardly be expected for several months at least, and possibly may be much later. We know that a great number of Army horses are to be sold during the next three months; the fact that this will lessen the work of the R.A.V.C. and increase the need for civil practitioners at home is not likely to escape the notice of the Government. There is evidence that the whole question of the release of veterinary surgeons is under consideration at Red Lion Square; and we may be sure that the only veterinary body likely to have any influence with the Government will do its best to secure fair treatment for veterinary surgeons and to ensure that the profession shall reach its maximum of utility to the nation; but at present, while a "state of war" still exists and is likely to continue for some time, that must remain the first consideration.

It is quite uncertain what the permanent after-war strength of our Army will be; but it seems more than possible that it may be considerably above the pre-war status. In any case, there will be not a few vacancies, by the release of the older officers who would normally have retired during the last four years. It follows, then, that a number of our younger members at present holding temporary commissions will be offered permanent ones. Speaking broadly, it may be said that any young member who gets the chance of permanent enrolment in the R.A.V.C. will do well to think carefully before refusing it. Its acceptance means a settled career, with a fair pension assured at its termination.

The present prospects of civil practice are much more dubious. There is a difficult and uncertain time before the whole of the nation's workers; and the conditions are likely to be especially unstable during the next ten or twelve years—that is, during just the period in which the young member of to-day might have expected to establish his position in normal times. Moreover, the period will be in some measure a transition one for veterinary surgeons; and, though some of the changes we may expect will increase the profession's utility, they may not tend to its financial advantage.

Another feature calls for immediate attention. We have seen that our Council has made repeated efforts to obtain the release of veterinary students who are serving with the colours, but so far with little success, and with less sympathy from the War Office authorities. That this is a necessary provision for the near future is obvious, and that it

is recognised in the scheme of demobilization is evidenced by the provisions announced in the public press, portions of which are reprinted on another page of this issue. It is an open secret, too, that the number of students now remaining in the Colleges is hardly sufficient to justify their existence.

## ROYAL ARMY VETERINARY CORPS.

We have to congratulate our confrères in the Army Veterinary Service on the honour that has been done them in the raising of the Army Veterinary Corps to the status of a "Royal" Corps.

It is a fitting testimony to the good work that has been performed by this Corps in all theatres of the war. When we consider the small staff which existed when the war started we must realise that the foundation of the magnificent structure which so quickly sprang up must have been very soundly laid. The nucleus corps was evidently well trained and thoroughly efficient.

## THE SERUM OF LECLAINCHE AND VALLÉE.

Leclainche and Vallée, in *La Presse Médicale* of April 2, 1917, published a new communication upon the methods of using their polyvalent serum. Their account is based upon the very numerous applications of the serum which have been made in the course of the war; and they state that it may be employed by local applications upon infected surfaces and by subcutaneous injections when post-traumatic infections are present. The two methods of application are dealt with separately.

*Local applications.* The use of the serum excludes that of antiseptics, which, in addition to the coagulating and neutralising actions which some of them exercise, almost always have the disadvantage of depressing and paralysing the organic cells. This latter action is essentially antagonistic to that which the serum is desired to effect.

The serum must be brought into contact with the anatomical elements; and therefore it is necessary to free the wound from the various elements which cover it by a minute washing with boiled water.

The testimonies of medical men who have employed the serum on the prescribed lines are completely favourable. P. and L. Bazy write, "In wounds which cannot be completely united by sutures, we apply the polyvalent serum freely, obtaining excellent results. The healing processes are not painful, the flesh is well preserved, the lips of the wound remain admirably flexible, and very rapid granulation commences at its base." On the

other hand, Prof. Quénu, summarising the results of various surgeons, decides that "the polyvalent serum causes a considerable diminution of suppuration." At the same time a greater activity in the epidermisation of the edges of the wound, a lessened sensitiveness, and an improvement of the general condition with descent of the temperature, are observed. These conclusions are applicable both to war wounds and those which result from the opening of phlegmons, anthrax lesions, etc.

It is recognised, however, that "discrimination is necessary in the treatment of septic wounds, and that it is sometimes desirable not to perpetuate the same formula of treatment." It is known to-day, for instance, that the *bacillus pyocyaneus*, which is often resistant to the polyvalent serum, yields marvellously to a weak solution of nitrate of silver.

Cazin and Mdle. Krongold say, "When the beneficial action of the polyvalent serum, locally applied, does not manifest itself rapidly and evidently, it is useless to continue this treatment." In these circumstances the microbial flora of the wound include at least one microbe that is not comprised among the numerous forms used for obtaining the serum. It follows from this that the polyvalence of the serum is always being improved by the introduction of microbial types isolated from war wounds.

*Subcutaneous injection.* In the hands of Prof. Lagneu, Cazin, Vautrin, Gosset, Berger and Bergeron, Prof. Delbet, and Prof. Quénu, who have studied its employment, the polyvalent serum has shown itself a very valuable agent against infections and toxic complications of large wounds. Cazin concludes from his experience that in particularly serious cases in which he has had recourse to the serum the results have been very favourable, for he has observed a progressive and sufficiently rapid descent of the temperature with an improvement in the general condition. And Quénu adds, "It is impossible to deny that sero-therapy has contributed much to the treatment of gravely affected septicæmic patients." It appears to be as an anti-streptococcic agent that the serum acts in circumstances.

The hypodermic use of the serum (either alone or in conjunction with local treatment by means of the serum or some other agent) is also very valuable in the prevention of operative complications following operations in infected ground.

Prof. Delbet uses the serum in doses of 30 c.c. daily in polymicrobial infections. He says that in certain cases high doses appear to him to have a notable action, and his impression is that that they have saved the lives of some patients.

Hypodermic injections of this serum entail no danger of seric or anaphylactic accidents. The conclusions of the Academy of medicine, etc., are completely assuring on this point.

Leclainche and Vallée manufacture their serum at the laboratories of the Alfort Veterinary School, and hitherto it has been used solely for the necessities of the war. It is well, however, to follow its present evolution; for in time of peace it will be of great utility, and will then be available to all the world.—(*Revista de Higiene y Sanidad Pecuarias*).

#### THE TREATMENT OF EQUINE TETANUS WITH ANTI-TETANIC SERUM.

H. Bergh contributed his experience of this subject to *The Journal of the American Veterinary Medical Association* for 1916. The conviction that anti-tetanus serum is of little or no value in the treatment of equine tetanus seems general among veterinarians. The author's experience is very different; and he has as much faith in the curative efficacy of the serum as in its preventive efficacy.

The author especially insists upon the necessity of using sufficiently high doses of the serum. Doses of from 500 to 1500 units\* are absolutely insufficient as curatives; and their use as such, even in the initial stage of tetanus, inevitably involves failure. For prophylaxy, however, 1500 units suffice, and the preventive injection should not be neglected in any case of a suspicious wound; for with this the tetanic infection is avoided with almost absolute certainty. The treatment of tetanus with serum is costly, on account of the quantity required; and the veterinarian ought to make this clear to the owner before commencing treatment.

In treating equine tetanus the author does not limit himself to the use of serum alone, but employs every means to augment the resistance of the animal. At the point of infection, if it is possible to find it, he employs energetic disinfectants—cauterisation and incision, or extirpation of injured tissues. He does not exclude the use of suitable medicines, but always administers them subcutaneously, endo-venously, or intra-rachidially, and never by the mouth. He also insists upon the advantage of keeping horses in a dark and silent stable, and placing cotton-wool in their ears, in order to prevent the spasms as far as possible. The injection of the serum is generally subcutaneous, and only in the graver cases endo-venous. The author usually injects 9000 units daily, divided into three doses of 3000 units each. He maintains this quantity for four days, and then lowers the doses, injecting 1500 units three times daily.

In the course of the last six years seventeen cases of equine tetanus have come under the author's observation. Twelve of these recovered perfectly under treatment with serum, conducted as above stated. One horse died after receiving 15,000 units of serum, and another after receiving 24,000 units. In the other three cases the owners refused to bear the cost of serum treatment; and all three terminated in death.

The following are two of the author's cases:—

A racehorse, with a nail in the foot, was found by the author to have the limb rigid, and showed the whole appearance of tetanus. The same morning 3000 units of serum was injected; the dose was repeated at midday and in the evening, and so on for four consecutive days. The wound was treated with carbolic acid, glycerine, and distilled water, and covered with iodoform gauze and bandaged. The dressing was changed every day. On the fifth day of treatment the dose was reduced to 4500 units in the day, and continued at this rate for four days

\* U.I. in the original.



more. Then for another four days 3000 units daily, divided into two doses, were given; and finally 1000 units daily, also divided into two daily doses, were given for two days more. The horse in the meantime recovered completely, and within a month was able to run again.

The second case was a horse suffering from tetanus, with very accentuated trismus. The animal was put in a dark, quiet stable with a good straw bed; and one grain of arecoline, and half a grain of atropine were administered. Treatment with serum, on the same lines as in the preceding case was then instituted; and arecoline and atropine were also given twice daily. After three days of treatment the trismus gradually disappeared, the horse commenced to eat, and in a short time recovery was complete. Altogether this horse received 60,000 units of serum.

W. R. C.

#### SUCCESSFUL TREATMENT OF PURPURA IN THE HORSE WITH THE DANISH POLYVALENT SERUM PREPARED BY JENSEN. Prof. Dr. E. FROHNER.

There are two dark points in "petechial fever," the etiology and the treatment. Here as in other infectious diseases an efficient treatment depends on an accurate investigation of the cause. Apparently it is an affection having a polybacterial origin, since the streptococcus of strangles, the etiological agent in contagious pleuro-pneumonia, ordinary pyogenic bacteria and perhaps other as yet unknown infectious agents may under certain conditions induce a hæmorrhagic pathogenic effect that induces the characteristic clinical picture of purpura. With this multiplicity of causes it is conceivable that a single method of medicinal treatment is not sufficient for all cases and forms of the disease. For this reason the iodine and silver therapy, as well as the monovalent serum therapy in the form of antistreptococcic serum have not met with general support.

A new era in the treatment of purpura seems to have dawned since Professor Jensen in Copenhagen developed a polyvalent serum against the disease. The serum is prepared by the intravenous injection of various streptococci isolated from animals affected with purpura. This serum is then mixed with that used for strangles. The administration is per vein. On the first day 200 c.c. are injected. This is repeated once or twice in 100 c.c. doses according to the severity of the disease and the tendency to recur.

After using the serum in his clinic for about a year, Prof. Froehner concludes that it is undoubtedly a specific, that in many cases it has a very direct and rapid effect. Twelve cases were treated, nine of which recovered.

The visible effect of the serum is as follows:—

1. The petechiæ on the nasal mucous membranes usually disappear in 24 hours.
2. The swelling of the skin and the intestinal hæmorrhage (colic, prolapse of the rectum) likewise promptly disappear.
3. The temperature drops. The hyperleucocy-

tosis which is specially unfavourable in purpura rapidly returns to normal.

4. The serum should be administered. In two cases when given four to six days too late the horses died.

It costs about \$9.00 a litre.—*Monatsheft für praktische Tierheilkund.* Bd. 25 (1913) S. 61.

### Royal College of Veterinary Surgeons.

10 RED LION SQUARE, LONDON, W.C.1.

Telegrams—Centaurum, Westcent-London.

Telephone—City 1200.

13th December, 1918.

To the Editor of "The Veterinary Record."

#### DEMobilISATION.

Sir,—Members of the Profession now on Active Service will have noticed in the press the following announcement with regard to Demobilisation:—

"Officers or men serving in the Forces who in civil life practised a profession . . . . can secure their registration for demobilisation most rapidly by filling up the Civil Employment Form which all Members of the Forces can obtain from their Commanding Officers."

With a view to rendering any assistance that may be possible during the period of demobilisation, I have been authorised to open a Register to contain the following information:—

1. Names and addresses of Veterinary Surgeons requiring qualified Assistants.
2. Names and addresses of Veterinary Surgeons seeking appointments as Assistants.
3. Names and addresses of Veterinary Surgeons desiring to dispose of a practice or of entering into a partnership.
4. Names and addresses of Veterinary Surgeons desiring to purchase a practice or to enter into partnership.

I shall be glad, therefore, to receive from Members in civil life such particulars as will be useful to Members seeking an assistantship or wishing to purchase or enter into partnership; and from Veterinary Officers about to demobilise such information regarding themselves and their desires, as would be useful for inclusion in the proposed Register.

The Register will, of course, be open to inspection by Members at this office, and it will be possible, I hope, to supply extracts from it in due course, to enquiring Members of both classes.

I am, Sir, your obedient Servant,  
FRED BULLOCK, Secretary.

#### DEMobilIZATION.

RELEASE OF MEN WITH DEFINITE EMPLOYMENT.

##### EMPLOYERS' PROCEDURE.

The Controller-General of the Department of Demobilization and Resettlement makes the following announcement:—

2. . . . . As it may now be possible to release men from the Forces more rapidly and sooner than was at first anticipated, the Government desires to accelerate the process of identifying the men in the Forces, who,

though they cannot be treated as pivotal, have definite work awaiting them.

3. The Government have therefore decided to afford the opportunity to employers of securing, by direct communication with their employees in the Forces in the manner explained below, that those who were in their employment on or before August 4, 1914, and to whom they can now offer employment, shall be registered for demobilization. Such a definite offer of employment in writing, if produced to his commanding officer by the officer or man concerned, will be accepted as evidence that employment is awaiting him, and the man will be registered by his commanding officer to be demobilised in the same way as a "slip man" under the Civil Employment Form procedure and ranking for priority after a "pivotal" man.

#### FORM OF EMPLOYER'S OFFER.

4. The offer must be in the following form:—

*I/we (full name and postal address of employer) hereby declare that (full name and naval or military number and address of employee) was in my/our employment before August 4, 1914, and that I/we are prepared to offer him employment as a (name and occupation) immediately on his return to civil life (or give the date after which the employment will be available).*

5. The offer must first be taken or sent, in the case of officers to the local district director of the Appointments Department; in the case of other ranks to the local advisory committee attached to the nearest Employment Exchange, who, without guaranteeing in any way the offer of employment, will do their best to eliminate spurious or collusive offers. The district director of the local advisory committee, where they are in a position to endorse the offer, will forward it to the officer or man at the address given by the employer, but will assume no responsibility for the correctness of the address.

6. If the officer or man desires to accept the employment offered, he will hand the statement to his commanding officer, who will then register him for demobilization.

7. This procedure is additional to—(1) the selection of pivotal men now in progress; and (2) the use of the Civil Employment Form, which is now being filled up by members of the Forces, and the postcards (A.D. 406) and R.C.V. forms, which employers have been invited to fill up.

8. The actual date of demobilization will depend partly on naval and military exigencies, and partly on the transport and other accommodation available; but no other formalities will be required. . . . It will be understood that some individuals are so essential to the Forces that they cannot be released immediately; for example, the *personnel* of military railways overseas, hospital attendants, farriers, mechanical transport, and officers or men in the Regular Army serving on pre-war attestations.

11. It is not necessary for offers of employment to be sent to officers or men in the following classes:—

- (b) Officers and men who have notified their commanding officers that their civil occupation is that of a student or teacher and are accordingly classified in Industrial Group 43 in their naval and military documents. Instructions as to the demobilization of such individuals are being sent to the Forces.
- (c) Officers or men serving in the Forces who in civil life practise a profession or are their own employers, such as barristers or proprietors of one-man businesses, can secure their registration for demobilization most rapidly by filling up the Civil Employment Form which all members of the Forces can obtain from their commanding officers.

#### MEN OVER 41.

The demobilization of men over 41 who were called up early this year under the Military Service Act No. 2, 1918, has been ordered.

The number of men demobilised grows daily. The figures up to Friday, 13th inst., were:—Prisoners of war, 75,000; Miners, 25,000; Shipbuilders, 1000; Miscellaneous, 11,000; Sick and wounded, 35,000; Pivotal men, several thousands.

Maj.-General Burnett-Hitchcock, D.S.O. (the Director-General of Demobilization), indicated four main points which have to be considered in demobilizing—the situation, the rate of demobilization, its extent, and "how to be demobilized." Having remarked on the necessity of an army of occupation in Germany, he said that Mesopotamia, Palestine, the Black Sea region, the Dobrudja, and the Indian frontier had also to be remembered; and it was very difficult to keep units up to strength in some of these places on account of transport, malaria and other diseases. People were apt to overlook everything but the occupation of Germany. The machinery of demobilization was started in this country months ago, but however ready we might be on this side, the Army in France could not be prepared at a moment's notice. There were 17,000 units in the Army, and nearly every unit possessed some peculiarity. The term of service, for instance, varied to an extraordinary extent, 19 different categories of soldiers had some peculiar statutory right to be safeguarded, and the demobilizing authorities must see that all such rights were kept in mind.

#### GOVERNMENT GRANTS.

The Controller-General of the Department of Demobilisation and Resettlement of the Ministry of Labour makes the following announcement:—

#### HIGHER EDUCATION AND TRAINING FOR THOSE WHO HAVE SERVED IN THE FORCES.

In order, so far as possible, to restore the supply of men of higher general, scientific, professional, and business attainments whom the nation needs for every profession and industry, the Government have decided in suitable cases to provide financial assistance for ex-Service men who desire to resume suitable education and training, with a view to their re-settlement in civil life, but who cannot otherwise afford to meet the expenses involved. The scheme sanctioned applies equally to officers, warrant officers, non-commissioned officers and men in the ranks, provided they are of suitable educational promise.

The facilities available for the types of training contemplated are limited, and assistance can therefore only be granted up to the limit of these facilities to those candidates who can satisfy the authorities charged with the administration of the scheme, and the bodies or persons by whom the training will be given, that they are of sufficient educational promise to justify a grant being made to them from public funds.

The amount of the assistance to be granted will be separately determined in each case. On the one hand, this amount will be limited to the actual sum deemed sufficient to meet the necessary fees and the expenses of maintenance of the candidate, after due account has been taken of his private means, if any; of any scholarships to which he may be entitled; and of the assistance which can reasonably be expected from those who would, in ordinary circumstances, have borne or contributed to the expenses of his training. On the other

hand, it is intended that the amount of the assistance shall be such as will enable a candidate to take his course of training under reasonably adequate conditions, even though he or his friends are not in a position to meet any part of the expenses of the course.

In the case of those candidates who were married before the date of the armistice, November 11th, 1918, an allowance may also be made towards the maintenance of children up to and including the age of 15.

Assistance may be granted for :—

1. Courses of higher education in institutions approved by the Board of Education or by the Board of Agriculture and Fisheries, as the case may be, or by the corresponding departments in Scotland or Ireland.

2. Such practical training in offices and works and professional employments as may be approved by the Ministry of Labour.

3. Such practical training on farms, &c., as may be approved by the Board of Agriculture and Fisheries, or by the corresponding Department for Scotland or Ireland.

Officers and men now serving with any unit in H.M. Forces, whether at home or abroad, will, before being demobilised, receive through the naval or military authorities concerned the appropriate forms of application for assistance—in the case of the Army and Royal Air Force, Army Form, Z. 15. The completion of these forms will be sufficient in itself to ensure that the candidate's case will be taken up for further inquiry and due consideration. Applicants (whether serving in or discharged from the Forces) who fail to receive Army Form Z. 15 or Navy Form S. 1299 should apply, on or after January 13, 1919, for the necessary form to the appropriate District Directorate of the Appointments Department of the Ministry of Labour (the Department charged with re-settlement in civil life of officers and men of like educational qualifications), according to their respective places of residence.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918 :—

Michael Cunningham, Capt. R.A.V.C.	£1	1	0
A. E. Darwell, Leigh	1	1	0
J. R. McCall, Maj. R.A.V.C. (1918-19)	2	2	0
E. McSwiney, Cork	1	1	0
Previously acknowledged	1119	1	11
	£1124	6	11

#### ARMY VETERINARY SERVICE

B.M. 2709/3/18 (V.D.)

To :

Directors of Veterinary Services.

**All Expeditionary Forces.**

Deputy Directors of Veterinary Services.

Assistant Directors of Veterinary Services.

**All Home Commands.**

On the publication of the Royal Warrant granting the distinction of "Royal" to the Army Veterinary Corps the following memorandum dated War Office, 28th November, 1918, has been received from Lieut.-General Sir John S. Cowans, G.C.M.G., K.C.B., M.V.O.,

Quartermaster-General to the Forces, and is circulated for information of all ranks and publication in the Orders of Royal Army Veterinary Corps units :—

"The Director-General,

"Army Veterinary Service.

"On the occasion of His Majesty the King being graciously pleased to raise the Army Veterinary Corps to the status of a 'Royal' Corps, the Quartermaster-General to the Forces wishes to convey to all ranks his congratulations and appreciation of the good work which they have performed during the present war.

"The Corps by its initiative and scientific methods has placed Military Veterinary Organization on a higher plane. The high standard which it has maintained at Home and throughout all the theatres has resulted in a reduction of animal wastage, an increased mobility of Mounted Units and a mitigation of animal suffering unapproached in any previous military operations."

L. J. BLENKINSOP, Major-General,  
Director-General, A.V.S.

War Office, 29th November, 1918.

EXTRACTS FROM *London Gazette*,

WAR OFFICE, WHITEHALL, Dec. 12.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Qrmr. and Lieut. H. Lloyd, R.A.V.C., to be Capt. under Art. 330, R. Wt. for pay and promotion (Nov. 9).

Dec. 17.

Temp. Lt. to be temp. Capt. :—P. F. Wilson (Nov. 22).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Dec. 12.

Capt. M. T. Sadler relinquishes his commn. on acct. of ill-health, and retains the rank of Capt. (Dec. 13).

#### Ophthalmia among Horses in France.

At a meeting of the War Emergency Committee of the Royal Agricultural Society of England, held on Wednesday, 12th inst., under the chairmanship of Sir John H. Thorold, the following resolution was passed :—

"That the War Emergency Committee desires to call the attention of the War Office to the grave danger attending the repatriation of Army horses from France owing to the prevalence of a malignant form of ophthalmia, and from other infectious diseases in a more or less epidemic form among these horses. It is hoped that special care will be taken to safeguard the interests of horse-owners and live stock breeders in the United Kingdom."

#### Qualification for practice in U.S.A.

[The following particulars were printed in the "Announcement of the New York State Veterinary College, 1915-16," at Cornell University, Ithaca, and were accompanied by an official notice that from September, 1916, all students who register in the Veterinary College will be required to take a four years' course in order to receive the degree of D.V.M.]

The number of British graduates who practise in the States is not large, and the subject is therefore not of immediate importance; but the standpoint in the granting of the license differs from our own. Quite recently our Council had before it the draft of an Ordinance for South Africa, which also differed from our methods. It appears likely that our own governance will require alteration from time to time to meet changing conditions; and the methods of other men is worth attention.]

Legal requirements for license to practise veterinary medicine and surgery in the State of New York. Extracts from Article X, chapter 860, Laws of New York, 1895.

§ 171. **Qualifications for Practice.** No person shall practise veterinary medicine after July one, eighteen hundred and ninety-five, unless previously registered and legally authorised, unless licensed by the Education Department and registered as required by this article, nor shall any person practise veterinary medicine who has ever been convicted of felony by any court, or whose authority to practise is suspended or revoked by the Education Department on recommendation of a State Board.

§ 176. **Admission to Examination.** The Education Department shall admit to examination any candidate who pays a fee of ten dollars and submits satisfactory evidence, verified by oath if required, that he (first) is more than twenty-one years of age; (second) is of good moral character; (third) has the general education required in all cases after July first, eighteen hundred and ninety-seven, preliminary to receiving a degree in veterinary medicine; (fourth) has studied veterinary medicine not less than three full years, including three satisfactory courses, in three different academic years, in a veterinary medical school registered as maintaining at the time a satisfactory standard; (fifth) has received a degree as veterinarian from some registered veterinary medical school. The degree in veterinary medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the Education Department that three years before the date of the degree, or before or during his first year of veterinary medical study in this State, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school; or has a preliminary education considered and accepted by the Education Department as fully equivalent.

§ 178. **Examinations and Reports.** Examination for license shall be given in at least four convenient places in this State, and at least four times annually, in accordance with the Education Department's rules, and shall be exclusively in writing and in English. Each examination shall be conducted by an Education Department's examiner, who shall not be one of the medical veterinary examiners. At the close of each examination, the Education Department examiner in charge shall deliver the questions and answer papers to the Board, or its duly authorised committee, and such Board without unnecessary delay, shall examine and mark the answers and transmit to the Education Department an official report, signed by its president and secretary stating the standing of each candidate in each branch, his general average, and whether the board recommends that a license be granted. Such report shall include the questions and answers, and shall be filed in the public records of the university. If a candidate fails on the first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the Education Department, they may waive the required six months' study.

§ 179. **Licenses.** On receiving from the State board an official report that the applicant has successfully passed an examination and is recommended for license, the Education Department shall issue to him, if in their judgment he is duly qualified therefor, a license to practise veterinary medicine. Every license shall be issued by the university under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the university, who approved the credentials which admitted the candidate for examination, and shall state that the licensee has given

satisfactory evidence of fitness, as to age, character and preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found properly qualified to practise. Before any license is issued it shall be numbered and recorded in a book kept in the Education Department office and its number shall be noted in the license. This record shall be open to public inspection, and in all legal proceedings shall have the same weight as evidence that is given to a record of conveyance of land.

§ 180. **Registry.** Every licensee, to practise veterinary medicine, shall, before the licensee begins practice thereunder, be registered in a book to be known as the "Veterinary Medical Register," which shall be provided by and kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of his license to practise. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requisites as to attendance, terms and amount of study and examination as required by law and the rules of the university as preliminary to the conferment thereof, and no money was paid for such license except the regular fees, paid by all applicants, therefor; that no fraud misrepresentation or mistake in any material regard was employed by any one or incurred, in order that such license should be conferred. Every license, or if lost, a copy thereof, legally certified so as to be admissible to evidence, or a duly attested transcript of the record of its conferment, shall before registering, be exhibited to the county clerk, who only in case it was issued or endorsed as a license under seal by the Regents, shall endorse or stamp on it the date and his name preceded by the words: "Registered as authority to practise veterinary medicine, in the Clerk's office of — county." The clerk shall thereupon give, to every veterinarian so registered a transcript of the entries in the register, with a certificate under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk at total fee of one dollar for registration affidavit and certificate.

#### ANNUAL REPORT OF THE VETERINARY DEPARTMENT, BRITISH EAST AFRICA, FOR THE YEAR ENDING 31ST MARCH, 1918. [Abridged].

(Concluded from p. 198.)

#### EIGHTH ANNUAL REPORT OF THE VETERINARY PATHOLOGIST.

As in last year's report, I do not propose to touch on the Research work accomplished for this year, since that will be included in my comprehensive report, which I hope to have ready for publication very soon. Details of Personnel, Correspondence, Livestock and Routine work only are included.

**Personnel.** The Assistant Veterinary Pathologist, Capt. Kearney, proceeded on Home leave on Aug. 27th, 1916, his place being taken by Capt. Bradshaw, who commenced duty here on Aug. 8th, 1916.

**Laboratory Staff.** Mr. Schultz, who was attached to the Military in the field, returned to the laboratory on October 17th. Mr. E. W. Gray proceeded on short leave to South Africa on January 24th, 1917.

Mr. J. Ford remained on duty throughout the year.

Mr. H. Gray arrived on first appointment on Oct. 29, 1916.

Mr. J. Burton, Overseer, has been at the Laboratory throughout the year.

**Laboratory Students.** Mr. E. Bessler has been at the Laboratory throughout the year.

With reference to Laboratory students, desire to point out that there have been vacancies for three students

for the past three years, and since the departure of Messrs. Duirs and Hoddinott, in August, 1914, and February, 1915, respectively, one post only has been occupied.

This is regrettable in view of the excellent opportunity there exists for youngsters of the country to obtain a thorough knowledge of Animal Diseases that would fit them for a scientific career, or help them to become successful stock raisers in the country hereafter.

*Correspondence.* During the year 4407 inward and 4478 outward letters and telegrams have been dealt with, making a total of 8885.

One Staff Bungalow has been added to the Laboratory buildings during the year.

*Technical Work of the year.* In addition to the routine duties, a total of 2614 slides and specimens received from Government officials and stockowners were examined and reported on during the year, divided as follows:—

[The figures in brackets are the numbers reported "No parasites seen."]

Horses, 622 (346); Mules, 274 (154); Donkeys, 37 (17); Bovines, 1488 (675); Sheep, 5 (5); Goats, 3; Pigs, 12 (5); Dogs, 78 (43); Camels, 6 (3); Fowls 63 (32); Wild animals—Serval cat, 2 (2); Thompson's Gazelle, 3; Jackal, 1 (1). Insects and various Ticks, 19. Flies, 3.

*Serum and Vaccine Preparations.* 266,096 doses of anti-rinderpest serum were manufactured during the year—an increase of 61,616 doses over that for the last financial year.

The issues of rinderpest serum for the year are as follows:—

Civil Administration	doses	104,098
Military	"	215,502
Rinderpest Commission, Nyasaland	"	30,240
Leaving balance in hand	"	47,762

Again the Rinderpest Serum Suspense Account has been in operation throughout the year, and has been the means of allowing the manufacture of serum to continue on a sufficiently large scale to meet all the demands for serum.

Other sera and vaccines prepared and issued during the year are as follows:—

	Prepared.	Issued.
Blackquarter vaccine	10,400	13,720
Colon Bacillosis	2,072	1,748
Ulcerative Lymphangitis	323	300
Canine Trypanblau	456	309
Bovine Trypanblau	161	94

The number of doses of Blackquarter vaccine issued over the amount prepared was drawn from the balance in hand of last year. In conclusion, I again wish to express my thanks to all the members of the Laboratory Staff as well as to the Veterinary and Administrative Officers for their loyal co-operation during the year.

(Signed) W. KEARNEY,  
for R. E. MONTGOMERY,  
Vety. Pathologist.

#### SWINE FEVER.—THE ADMINISTRATION BY THE VETERINARY DEPT. OF THE BOARD OF AGRICULTURE.

To the Editor of "The Veterinary Record."

I have been on the point of writing on this subject on several occasions, but something has always cropped up to prevent me so doing. I should like to hear the views of the country practitioner (who is the backbone of the veterinary profession) on the matter.

I have a very extensive country practice, and I think I have held the confidence for a number of years of my

clients—amongst them some of the largest breeders of prize stock in England: yet, when a suspicious case of swine fever occurs on the farm, the Board of Agriculture send a veterinary practitioner some 30 or 40 miles motor journey to make the necessary examination. A friend of mine who has, I should say, one of the largest veterinary practices in England, informs me that his opponent in the town is appointed by the Board of Agriculture, and when a suspicious case of swine fever occurs amongst his clients' stocks this gentleman takes over the case, and that my friend is then not allowed to have anything whatever to do with the matter.

I consider this treatment by the Board of Agriculture is most unprofessional, degrading, and unfair. What is the use of taking the M.R.C.V.S. degree and passing a post-graduate course? Surely it does not require any special skill to kill a pig and send the intestines to London. Would the medical profession tolerate this? I was talking to my medical attendant on the subject, and he thought it scandalous.

I would suggest that the Board of Agriculture should supply all veterinary surgeons with the necessary forms, and when an owner of a pig suspects something wrong he should at once report to his veterinary surgeon, or, should he not have one, to the nearest, and let him carry out the Board of Agriculture's instructions. It could be done with expediency and at half or a quarter of the expense.

When the Tuberculosis Order was in vogue we had to put up with the same treatment. If a deputation of County Veterinary Surgeons were to wait on the President of the Board of Agriculture and state their views, I am of opinion that something might be done to remedy this unfair treatment.

"PLAYFAIR."

#### An enthusiast on the Suffolk.

The following excerpts are from a long letter in *Live Stock Journal*, over the signature "S."

"In France, wherever there was one, the Suffolk horse made a reputation. It was the pride of the unit, the pet of the men, the worker of all workers. Its kind nature made it the horse the men took to; and when it came to work it earned a reputation of an equine Hercules. I met one in the Umptieth Division, on the Somme; it was known as 'Baby'—a great, fine, typical gelding it was, too, noted for its intelligence. From the Colonel to the latest-joined driver, 'Baby' was the only horse that mattered. It pulled guns and gun teams, when stuck, out of shell holes; and its remarkable good nature, although the times were trying, if anything, increased as the time went on. The Somme mud, the cold, exposed horse lines, the misery of active service conditions in a sea of mud, made no difference to 'Baby's' health, who managed to keep 'wholly fat,' and just as fit as if he was in some well-known stud in England, sleeping on clean wheat straw instead of on the soft mud. 'Baby' was, in fact, like most Suffolks, a sound, extraordinarily healthy and fit creature, a born worker, with the heart of a lion when it came to pulling a load.

"The war tested us all, both man and the lower animals, and some stood it, some didn't. It was a test worthy of the name, and in this test the Suffolk horse, wherever he was, earned a reputation which officers and men who had a Suffolk horse in their unit will never forget. One and all, the representatives of the breed proved their superiority to any other heavy horse as a good-natured, hard-worker, with a love of pulling, which means so much in moments of anxiety."

"The old-fashioned, short-legged Suffolk Punch, in the writer's opinion, is the horse for work and sound health, and he believes that this type of animal will be the Suffolk, which everybody will be looking for after

the war. Unfortunately, breeders have tried to eliminate this type by breeding a chestnut, long-legged, Shire-like thing, without any hair on its legs, with the idea that a Suffolk like a Shire in looks would please our neighbour breeders. But now, no doubt, the real old Suffolk will now come into his own."

"Although the war has taken away many needed animals, and the shortness of food has added to the difficulties of horse breeders, the Suffolks to-day have many grand specimens amongst them. If anything, there is a marked increase in bone. A visit to some of the leading studs will show what the Suffolk horse can do in war time on a limited diet."

"Typically a farmer's horse, able to move heavy loads, and with work ingrained in its character, free from the hair which leads to leg troubles, and free from vice, it is only a question of time before the Suffolk will become still more in demand, for a horse of this type is needed everywhere; and there is no doubt whatever that money spent to-day in starting a breeding stud is well invested and will double itself in value, if the stock chosen is the right sort, and the outlay is tempered with discretion."

#### A Bacillus resembling the Tetanus Bacillus.

R. S. Adamson and D. W. Cutler, in *The Lancet* for 1917, describe an anaerobic bacillus identical morphologically with that of tetanus. This new organism is sometimes encountered in tetanic wounds, but is also found in other parts.

Cultivations of this microbe experimentally injected into rabbits and guinea-pigs do not produce tetanus; but this does not prove that the microbe causes no morbid alterations in septic wounds.

The organism belongs to the vast group which includes the *bacillus tetani*, the *b. oedematis maligni*, the *b. aerogenes capsulatus*, and probably also other species as yet ill defined. Its presence in septic wounds augments the already existing difficulties of diagnosing tetanus microscopically.

#### Organising Research.

A movement has been inaugurated by the National Farmers' Union, which, if wisely guided, may lead to the organisation and consolidation of the forces engaged in Research work connected with animal diseases. The Scottish Chamber of Agriculture has fallen into line at once, and no doubt, when its Science Committee has reported on the subject, the Highland and Agricultural Society will follow suit. So far a good deal of work is under weigh, and from time to time various reports have been published. There is just the possibility that such efforts, isolated and without co-operation, may leave us very little wiser than we were.

What is wanted is a central authority to control and direct all such work. Research into sheep diseases, for example, can never be conducted apart from a laboratory, but they can never be carried out in a laboratory. Only on disease-infected areas can braxy, looping-ill, and scrapie be investigated, and only in premises associated with navel-ill can adequate and satisfactory research be made into phases of that disease. A central authority could allocate to every man his own particular line of inquiry, and if endowed with sufficient funds, as it must be, only such an authority could adequately remunerate each investigator, and co-ordinate results. *The Scottish Farmer.*

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.		
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		(b)	Out-breaks (a)	Slaught-tered.
	Dogs	Other Animals												
Gr. BRITAIN.														
Week ended Dec. 14	4	2	2	3			2	3	131	234	20	32	13	
Corresponding week in {	1917		7	8				2	87	148	25	26	7	
	1916		14	15			1	1	48	95	34	53	22	
	1915		10	10	1	1			31	46	15	76	207	
Total for 50 weeks, 1918	90	5	234	270	3	14	33	96	4246	7916	337	1357	544	
Corresponding period in {	1917		407	463			25	56	2416	4488	500	2059	864	
	1916		523	622	1	24	46	115	2021	4443	318	4164	9083	
	1915		556	622	56	702	48	84	†839	†1798	216	3852	16229	

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive.  
(a) Confirmed. (b) Reported by Local Authorities. ‡ Counties affected, animals attacked:—Gloucester 1, London 2  
Board of Agriculture and Fisheries, Dec. 17, 1918. Excluding outbreaks in army horses.

IRELAND.		Week ended Dec. 14		...	...	...	...	...	...	Outbreaks	14	...	...
				...	...	...	...	...	...	1	12	...	...
				...	...	...	...	...	...	4	28	...	...
				...	...	...	...	...	...	1	5	...	...
				...	...	...	...	...	...	...	12	5	10
				...	...	...	...	...	...	96	324	29	129
				...	...	...	...	...	...	...	...	...	...
				...	...	...	...	...	...	45	407	197	1127
				...	...	...	...	...	...	61	454	304	1817
				...	...	...	...	...	...	68	398	243	1349

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, Dec. 16, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1590.

DECEMBER 28, 1918.

VOL. XXXI.

## RECORDS.

Throughout the war period there has been a considerable diminution in our clinical records; and a large proportion of those that have appeared have come from the army. From the point of view of the civil practitioner desiring clinical reports directly bearing upon his own work, this is rather to be regretted. Of course there is much in army veterinary practice which has that bearing; but there is much also that has little or nothing of it, and on the whole the latter has formed the greater part of what has been published in English and foreign veterinary journals during the war.

Wound treatment has of course figured largely in our war literature, and some advances have been made in it; but some of them are not likely to prove very adaptable to general practice. As regards specific diseases, perhaps the three upon which most has been written are mange tetanus, and epizootic lymphangitis. Useful knowledge has been gained regarding the first; but here again some of the methods which have evolved, such as treatment by baths, will often be inapplicable in civil practice. The treatment of tetanus is always interesting, because generally so unsatisfactory; but it may fairly be said that every one of the new treatments the war has produced has yet to prove its efficacy. Moreover, we all know that there are some districts and many practices in which tetanus is seldom or never seen. Perhaps, of all these three diseases, the war has taught us most regarding epizootic lymphangitis; but the advances in connection with it are not likely to be very useful to practitioners in England. The disease is scheduled here; and, though we are likely enough to renew our acquaintance with it before long, our main concern will be with its diagnosis with a view to stamping out. Speaking generally, most of our army records are more scientifically interesting than directly useful to civil practitioners.

On the other hand, though the war has increased the range of civil practice, and fields of work formerly comparatively untrodden are now becoming familiar to us, little evidence of it has yet appeared in the journals. Neither have we seen much of old branches, such as bovine practice, which are more important now than ever before. Busy as practitioners have been during the war there are few records of their activity. Horses, cattle, sheep, pigs, rabbits, poultry!—we all know how comparatively rarely veterinary advice was once sought for most of these, and to-day it is constantly in request for all. The great bulk of the profession are behaving as they usually do—attending to their practices, and disregarding the duty of reporting their work for the common benefit.

## Royal College of Veterinary Surgeons.

### EXAMINATIONS IN LONDON.

At a meeting of the Board of Examiners, held in London on December 13th, 1918, for the Written, and on following days for the Oral and Practical Examinations, the following gentlemen passed their Final Examination:—

Mr. H. W. Brekke	Mr. H. C. P. King
I. R. R. Coleman	H. Thornton
L. N. Devenish	

The following passed their Third Examination:

Mr. A. Bakar	Mr. L. St. Bel Gollidge
J. E. Barnes *	H. Jerrom *
E. Beaumont	T. R. Thomas

The following passed their First Examination:

Mr. S. W. J. Van Rensburg	Mr. E. P. Ambrose
H. P. Standley	

### EXAMINATIONS IN EDINBURGH.

The following passed his Second Examination:

Mr. J. Lyon

The following passed their First Examination:

Mr. J. W. Kilmurry	Mr. T. J. Patterson
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### LIVERPOOL V. SCHOOL.

The following passed their Final Examination:

Mr. H. Salusbury	Mr. A. Williams
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The following passed his Third Examination:

Mr. J. K. G. Sissons

### GLASGOW V. COLLEGE.

The following passed his Final Examination:

Mr. C. Macpherson

### EXAMINATIONS IN DUBLIN.

The following passed their Final Examination:

Mr. M. A. O'Connor	M. G. West
J. J. O'Donovan *	W. White

The following passed their Third Examination:

Mr. J. V. Carroll	Mr. J. J. Lyons
R. J. Condy	M. F. Murphy *
M. M. Conway	T. O'Carroll
C. A. Lister	L. R. Swift

The following passed their Second Examination:

Mr. J. M. Morris	Mr. C. McCloskey
T. F. Connolly	

The following passed their First Examination :

Mr. H. G. Dooley	Mr. H. L. McConnell
J. J. Gildea	P. McGlinchey
P. J. Nolan *	T. A. Mernagh
R. Gregg *	P. M. Quille

Marked thus \* passed with Second Class Honours.

### ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

A General Meeting was held at 50 Friar Street, Reading, on Friday, December 6th, when Mr. J. Willett (the President) was in the chair, and there were also present Messrs. Coleman, Hancock, F. Willett, Parker, Verney, and the Hon. Secretary and Treasurer (Mr. G. P. Male).

Arising out of the minutes, the Hon. Sec. said the resolution they sent to the Board of Trade, *re* feeding, was acknowledged, and they said they had put it before the proper authority. As they knew, very soon afterwards the ration was altered, allowing an unlimited amount of straw to be given, which was a great advantage.

As to the resolutions passed at the last meeting *re* veterinary fees, he had forwarded these to the Secretary of the National Veterinary Association, and he hoped that Society would take steps to carry them out by bringing it before the various Government departments and Insurance Companies.

*Apologies for absence* were received from Professor Wooldridge, Major Rees-Mogg, Major Simpson, Messrs. MacCormack, E. Brown, McIntosh, Gillard, Hughes, and Baxter.

*Correspondence.* A letter was read from Mr. Donaldson Pottle urging the importance of increasing the scale of fees.

#### ELECTION OF OFFICERS.

The PRESIDENT said that now they had arrived at what they might term the Victory year, and he would like to propose a member for that Chair who he thought would receive the support of every member of the Association, and that was their Secretary, Mr. Male. (Applause). He would very much like Mr. Male to take on the work from now. He (Mr. Willett) had no ambition to go on with it. Mr. Male had done all the spade work. Considering the hospitality they had had there and the work he had done it was only proper they should elect him to that chair during Victory year.

Mr. COLEMAN said he would be very pleased to second that.

Mr. F. WILLETT supported the motion.

Mr. MALE said that their President had carried on so splendidly during these trying times when they had had small meetings, and had done such admirable work generally for the Association, that he felt now the war was over he should have a jolly good year, and that they would all meet in very different circumstances. He hoped Mr. Willett would carry on for another year. He had carried on right through to now, and it was only due to him that he should be asked to do so for another year.

Mr. WILLETT replied that that was not quite correct. The only member who had really carried on had been their Secretary and Treasurer, Mr. Male. He (Mr. Willett) had no ambition except to help over the rough times through which he had just passed. He had not spoken to Mr. Male about it, but he could promise him, on behalf of the Association, that he would have universal support.

Mr. COLEMAN said he would be delighted to still further the proposition. He appreciated the President's endeavours, and all the inconvenience he had been put to to carry on. ("Hear, hear"), but Mr. Male had made such an excellent Secretary that it would be showing their appreciation on that auspicious occasion if they made him their President.

Mr. MALE thanked them for their kind remarks which he said he was sure were not at all deserved. Under the circumstances he felt he must accept. The work had not been done as it should have been. Without the help of the Assistant Secretary, Mrs. Male, he could not have carried on. He had worked with the utmost cooperation with Mr. Willett, and they had to thank him more than he (Mr. Male)—("The President, No, no!")—for the work he had done during the past four years.

The proposal met with hearty and unanimous approval.

Mr. MALE proposed that the retiring Vice-Presidents (Messrs. Hancock, Broad, Parker, Verney and F. Willett) be re-elected, with exception that Mr. J. Willett take the place of Mr. Hancock, the retiring Vice-President.

This was seconded and agreed to.

The PRESIDENT thought Mr. Male ought to have someone to help with the Secretaryship. Would Mr. Coleman take on the Secretaryship for a year while Mr. Male was President?

Mr. COLEMAN: You won't ask me to take it on any longer?

The PRESIDENT then moved that Mr. Coleman be elected Secretary.

Mr. HANCOCK seconded, and the proposal was passed.

The HON. SEC. proposed that Mr. J. Willett be elected Treasurer.

Mr. VERNEY seconded, and it was agreed to.

#### VETERINARY FEES.

Mr. MALE said the question was put on the agenda, as he had letters from one or two members saying they were sorry they could not come down and discuss it. It seemed to him it was a question for veterinary surgeons in certain districts to agree among themselves to increase the fees. Fees varied so much in different districts that if they could come to some arrangement among themselves they would do more good than if it was left to the National Veterinary Medical Association. If they all agreed to increase the fees no one could get the work done any cheaper, and the clients would have to pay. With regard to shoeing they had had a meeting of the farriers in Reading and district, and had put up the prices from time to time and they had had no difficulty whatever.

The PRESIDENT mentioned that the fees charged in Glasgow for shoeing were 17/- for cart horses, 16/- for farm horses, 16/- for trotting vanners, and 10/- for cobs and ponies.

The HON. SEC. said that another reason why he put the resumed discussion on the agenda was so that members who had increased their fees 25 per cent., and had put it on their bills, could report whether there had been any trouble arising from that source. He had put it on his bills, but had not had one question asked. He saw in the Derbyshire list that there were special increases for individual cases—foaling, calving, cleansing, etc. If they charged 25 per cent. all round, that would bring the amounts up, practically, to what they were in Derbyshire. If they charged 25 per cent. on mileage, that brought it up to 1/3 a mile. He simply added 25 per cent. on the bottom of the bill, which included the increase on medicines and everything else.

Mr. COLEMAN said one charged more for short visits. He gave the items, but carried out no prices and put the sum total at the bottom. He had not had a single complaint.

The HON. SEC. pointed out that there was a great deal of difference in the fees charged for tuberculin testing, anti-abortion inoculation, intra-tracheal injection for husk, and milk fever injection.

The PRESIDENT: Can you suggest a price that should be charged? [Mr. Male said that on the Derbyshire list the minimum price was £1 1s. He did not know whether that was for one animal or a number.] (Several members: For one).

Mr. VERNEY said that they had added 10/6 after the first, he believed.

The HON. SEC. did not think they could fairly charge £1 1s. each for a large number of animals. He did 17/ one night not long ago, and did 76 two nights ago. He thought that if 5/- a head was charged that was a reasonable price for a large number, if the journeys were charged in addition. A guinea or a guinea-and-a-half and the journey was reasonable for a single case. As to anti-abortion injection the Board gave the material, and it was really sent out for the benefit of farmers, and was not for veterinary surgeons to make a big profit out of it. Viewing it from that light he had charged reduced fees where there was a large number of animals. He generally worked in a number of farms at the same time. As to intratracheal injection for husk the price would have to vary with the number of animals. If a few animals, one would have to charge 5/- a head. If there were from 30 to 40, 1/6 to 2/6 would be sufficient.

Mr. F. WILLETT asked what should be the charge for tuberculin test in the case of four or five cows.

Mr. MALE: 10/- a head.

Mr. F. WILLETT said he charged £1 1s. for the first, 10/6 the next two, and 5/- each after that.

Mr. VERNEY: It depends a great deal on your client, you cannot lay down a hard and fast fee.

The PRESIDENT thought they should lay down a hard and fast fee. He would like each member to give his views individually.

Mr. HANCOCK the question of a great number of animals being tested with tuberculin was subject to a special arrangement. But when they were doing, say, anything up to 20, he had never met with the least objection to £1 1s. for the first, and 10/6 for the second and for each of the others up to 20. Over that number there should be a special fee. He also did a good deal of anti-abortion work. He had never met with the least objection to what he had charged, namely, 10/6 for a single one. If there were more it was always 5/- a time. He thought it was well worth it; they get a great deal back for their money. Anti-abortion was one of the finest things they had. I charge for the journey 1/- a mile.

Mr. COLEMAN said he charged for testing with tuberculin £1 1s. for the first; up to 15, 10/6; from 15 to 40, 7/6, and 40 and over, 5/- each, *plus* the journeys in each case. For anti-abortion he charged the journey and 2/6 each head. They had had no small quantities to do, they were all 70's, 80's, or 50's, so he could not tell what the charge would be in small cases. For intratracheal injection they charged 3/6 each when the numbers ranged from 50 to 80, *plus* the journey in all cases. With regard to mallein testing, they seldom got more than from 1 to 5, and charged £1 1s. each. He had got all the Inspectors in Wiltshire to sign a petition to the County Council, and as a result the fees for mileage had been increased from 1/- to 1/6, and from 5/- to 7/6 for inspections.

Mr. MALE: That usually has to do with the County Council, and you get a special scale.

Mr. VERNEY said he was concerned mostly with dairy farmers, and the charged the journey and 5/- each for tuberculin testing. For anti-abortion he charged the farmer 2/6 each; for intra-tracheal injections 1/6 each.

He had taken to refuse Insurance Companies unless they paid a proper fee.

Mr. WILLETT said he charged the same scale of fees as the Midlands.

The PRESIDENT: It is the only way to treat them. The fees should be referred to the National, who should call a meeting to see if some basis could not be found for the whole lot.

Mr. F. W. WILLETT said that he had added 25 per cent. to his bills with satisfactory results. Since the Midland scale of fees had come out he had increased his to correspond with them.

The PRESIDENT: To sum up, it seems that there is a variation. Five practitioners of the Royal Counties are each charging practically different fees. There is no uniformity. Therefore, we ought to bring it to a head, and soon. Each particular county seems to have a particular scale. Surely if we combined—and combination is everything—the Society should be able to have a definite scale of fees all round. Those who are better paid would not grudge the poorer paid members of their Society getting the same fees. I think there should be a committee of the Society who should lay down a set of charges and let the members of the Society subscribe to it as agreed—and stick to it. I would like the opinion of the members on that particular point. We are now in a stage of evolution. Everyone is combining, and we ought to combine a little more than we are doing.

Mr. HANCOCK: How can you make all combine with those who are not members of this particular Association?

The PRESIDENT thought that if a man was not a member of the Association, but received a copy of their rules, he would agree to keep his fees up. They wanted to start afresh, and take prompt action in the matter.

Mr. F. WILLETT said that when one saw the prices and turnover of practices advertised, they felt that something must be done to raise the fees. With regard to some of the practices advertised, if the owners had sons wishing to become veterinary surgeons it did not seem possible that they could become such on the incomes that the parents were earning.

Mr. HANCOCK: We are absolutely cutting our own throats.

Mr. F. WILLETT said that therefore they should set an example. It was fright which kept others from charging more. If the Association fixed a scale of fees, after a short time veterinary surgeons who were not members would fall into line.

The PRESIDENT said they might point out to a man outside the Association that he was undercharging, if he was doing so, and that, therefore, he was undercutting. He did not know that it would not be a matter for the Council of the R.C.V.S. if a man was undercutting another in order to get the work.

Mr. COLEMAN thought it was a great shame that there were so many different fees in the different counties. They should be more uniform.

The PRESIDENT said that that was what they were trying to draw into line. If the other men in their neighbourhood were out for the common good they would be much more likely to get members for the Association than at present. That was his feeling as President, and as he vacated the chair he would like to see it put on a strong basis. They should get a Committee formed by the Royal Counties to formulate a scheme, as other Societies were doing, lay down the price, and advertise it in their papers, pointing out that, as union is strength, it behoved all who are not members of the Society of their particular district to join now.

The HON. SEC.: Most veterinary surgeons around here are members.

Mr. HANCOCK said it would have much greater force if they would, in the meantime, draw up a short list of minimum prices which they, as members of that Association, had pledged themselves to charge.

Mr. VERNEY: I think it would be a good thing to have set fees.

The PRESIDENT said he was not interested, being in London, but he would like members of the Association to help forward a scheme like that.

Mr. F. WILLETT said that as labour was going to fix their fees, it was time the veterinary profession fixed their prices.

The PRESIDENT said that no doubt there would be a revival of everything; everything would go ahead after the stagnation of the war. If they were not prepared to go forward with the others they would be left behind.

Mr. HANCOCK moved that a small Committee be formed to formulate a list of fees for the special kind of work referred to, and report to the next quarterly meeting of the Association.

Mr. F. WILLETT seconded, and the following were appointed: Messrs. Male, F. Willett, Verney, Coleman, Hancock, and Parker.

The PRESIDENT said that if any man undercharged it should be considered an act derogatory to the Association, and he should be asked to resign. If the benefits of joining this Association were pointed out to practitioners he thought other members would join them.

#### "AFTER-WAR PROBLEMS."

The PRESIDENT: I would like to make a few remarks to form a basis for discussion. There is no doubt the repatriation and re-settling of the members of our profession bristles with difficulties. It is only right that the older men and the non-efficient should be returned first, more especially those who have practices of their own. The most useful and younger men would naturally be kept in the Army the longest. There must be a considerable number at the front who were not of much use, either through ill-health or want of adaptability, and had the war continued, it would have been the duty of the Veterinary Tribunal to have replaced these with younger men. But the question is would many of these be available as assistants. Therefore unless men applied for by their former principals are released, the difficulty of getting good assistants will be still of some duration. Then there is the question of men repatriated who had practices previous to the war. Some men went to a near neighbour saying they were joining up, and would the neighbours carry on for them, signifying their intention of coming back. Others did not go to their nearest neighbour, or opponent, but to a man seven or eight miles away, and asked him to do what he could for them while they were away. Naturally, the clients went to the nearest man in the town, namely, the opponent of the man who was serving. Is that man in that town expected to hand over all the clients that had come to him through the absence of the other man? Naturally, if he had been approached to carry on by the man who went away, it would be a matter of honour for him to hand over the clients when he came back—that was, providing they could get the clients to go back. They could not marry a client to a professional man. They might be more satisfied with the man they got in the interim than they were with the previous man. These are some of the difficulties I see. Some men had gone away without signifying their intention of coming back at all. They would expect—though they had no right to expect, to get all their clients back. They would feel raw if the man who had been serving them in the meantime did not hand them over. That would be a difficult matter for the College to solve. There is the case of a man who had been exempted by a Tribunal who was carrying on practice on behalf of the widow of a man who had "gone West" in the war. He has carried on the practice and paid 50 per cent. of the takings. The widow will have, under those circumstances, a difficulty in selling the practice. The man could not carry on for the widow indefinitely, and the

practice, when sold, would be practically the possession of the man who had been carrying on.

Mr. VERNEY thought it would be largely a question for the clients.

The PRESIDENT suggested that the Council of the R.C.V.S. should keep a register of gentlemen in the profession who were wanting eligible assistants. It would be a central plan, and a repatriated man passing through London could inspect the Register. A small charge should be made for the registration. They had to advertise now. If it was published in the papers that there was a Register of practices to be sold and the vacancies for assistants at the R.C.V.S., open to the perusal of any man returning from the front, it would go far to solve the question of the difficulty of assistants. After all, it is a matter between the employer and the employee whether they agree as to remuneration. But it seems a simple way to put men into communication with jobs when they come home.

Now, as to the Council of the R.C.V.S., I have had an opportunity lately of knowing there has been a lot of dissatisfaction with the Council itself. Someone suggested that the profession should "down tools," and demand the resignation of the whole Council. I turned round and said I prefer constitutional methods. When eight men retire from the Council every year, how many more put up? All admit new blood was wanted on the Council. Older men have done good work in their time and all honour to them, but they have outlived their utility on the Council, and in their places new and vigorous blood is needed. I would suggest that men who have gone out and done their bit, who have seen things, and had their minds broadened, are the men we want on the Council if we are to have vigorous treatment in the profession. It is their own fault if they do not get fresh men on the Council. Eight retire each year, and are usually nominated by their noble selves. If eight are required why do not twenty-four put up for the vacancies.

Mr. MALE: The eight need not be voted for.

The PRESIDENT: They should propose twenty-four men as candidates for the vacancies. Then within three years they would get a new lot of blood on the Council, and I must say, it is wanted. There are five or six men on the Council who were serving with the Expeditionary forces. To my mind those men, as soon as they accepted Commissions, should have resigned. They have been non-effective members of the Council for four years, and if those men put up again their patriotism would not be forgotten, and the profession would vote for them. Those men are nominally upon the Council, but had no voting power. What happened? Twice, or three times, through the absence of a quorum the Council were not able to carry out the recommendations of the Registration Committee.

Mr. COLEMAN: There has been a quorum only twice in three years.

The PRESIDENT: Certain branches of the profession—the Army and Board of Agriculture, should have representatives on the Council, but why each School should have one or two representatives I cannot conceive. Surely when any question affecting the Schools arose the Council could be depended upon to deal justly with it. It does not matter where the members of the Council come from—Ireland, Scotland, or any other part of Britain, providing they attend the meetings. But some only attend one or two meetings a year. What is the use of that? If we are going to have a vigorous, strong Council, we want a strong voting and debating power. Some of the present members of the Council are head and shoulders above the others, and these few lead the remainder—which does not tend to efficiency.

In conclusion, I understand that the Council hopes to bring in a new Bill early in the next Parliamentary

Session, and I wish every success to their efforts, and that's why I am averse to any revolutionary measure.

One leading man says so and so, and the whole of the others vote in that direction. He moved: "That the Royal Counties Veterinary Association agree that a resolution should be forwarded to the Royal College of Veterinary Surgeons urging upon them the advisability of keeping a Register of practices for sale, assistants wanting situations, and also vacancies for assistants, whereby those members returning to civil life from the Army may have the opportunity of being placed in suitable employment. And that a small charge be made to cover expenses."

Mr. COLEMAN seconded.

Mr. VERNEY quite agreed that there should be some new blood in the Council.

Mr. HANCOCK said he could not say he had been very much struck with what his friends had told him with reference to the doings of the Council. They seemed to be divided into two camps, so to speak. That was not recently, but formerly there appeared to be a House of Lords and a House of Commons, and what the House of Lords suggested the Commons adopted.

He liked what the President suggested as to the list of practices that required assistants and the practices that might be for disposal. It was a capital idea. They had to consider not only the chaps who had been practising, but a lot of graduates who were coming back and anxious to settle down. He took it that the essence of success with regard to a practitioner in the country was to put himself geographically in the right place. He suggested that the Council should put up a list that would be a guide to those young fellows not so start in the wrong place. Otherwise some of them would be committing suicide professionally. If some of them did what they proposed they would have such a fall that they would never recover from it. He heartily endorsed all the President had said with regard to the desirability of new blood on the Council. Every public body like that should be replenished with fresh blood as often as possible. If people would come forward with views that ought to be pushed forward they would receive the hearty support of the members generally.

Mr. MALE: If the position is as the President describes it, and the inefficient, through some cause or other, have to be liberated first—

The PRESIDENT: I am only suggesting that in the course of human nature the Army will let them go first. I have no authority to say so.

Mr. MALE thought that if that was the case it was very bad luck indeed. Many of the best men had single-handed practices which they had left at the beginning of the war and joined the Yeomanry and Territorials. If they were repatriated last it was very hard luck on them. It was a matter that the Council should go into with the Army Veterinary Corps, so that those men who had single-handed practices, and who had to leave them all in a hurry to go into the Yeomanry, should be repatriated first. In other walks of life single-handed business men were going to be liberated first, and so it ought to be in the veterinary profession.

If there was any doubt about the question it should be a matter for the Council to look into and act in the interests of men with single-handed practices. He had recently tried to get someone back, and he had a letter saying he did not see there was much chance. He did not know how they were going to judge as to who should come back and who should not. In any case they wanted to know definitely when they were coming back, whether this year or next, so that they would know what arrangements to make. Some definite statement should be made by the Army Veterinary Corps as to the system they were adopting with regard to the repatriation of these men. If there was no system they should formulate one.

With regard to anomalies in war time practice that, as the President said, would be a very difficult problem indeed. One could only look at it from a point of honour. The men who had been away should be given every facility to get back their clients. If the clients refused to go back it would be very awkward. He heartily agreed with the President on the resolution. It was an excellent idea. With regard to the men who had been in the ranks of the A.V.C. during the war, he was very much afraid they would have a large number of ex-A.V.C. sergeants dumped down all over the country. He had a letter in which the writer said, "am seeking suitable employment either as a *locum* or in some large stables. I am forty years of age and accustomed to horses, with a slight knowledge of other animals. I was a sergeant in the A.V.C. in France, and passed their vet's examinations . . ." Another sergeant in the A.V.C. wrote, asking if he knew of any job as assistant veterinary inspector under the Contagious Diseases of Animals Act.

The PRESIDENT said had had two similar applications.

Mr. MALE said that it was a great pity the men were put into the position they were, because very often they did as much as the veterinary officer himself: they prescribed, treated the cases, and almost the whole thing was left in their hands. If these men came back and competed with Army Veterinary Officers when in civil life they only had themselves to blame.

The PRESIDENT: I think you can trust the Council in their new Bill to scrap that.

Mr. COLEMAN said he would like to say a few words with regard to the Council. The position of the Council was caused entirely by the lethargy of the members of their own profession. The difficulty that any new blood had on that Council to bring forward fresh ideas was greater than words could express. They were shut up in a moment. What Mr. Willett said was perfectly true. Some men had done excellent work, but there were a few who ruled the roost entirely. He had fought very hard on two occasions to have the Committees elected individually, each name to be put up and voted upon. Once he succeeded by forming a little caucus around him. At this time he was on the Library and Registration Committees only. The following year he objected that the Library Committee meetings were over in about a moment and that nothing much was done. Last year he again raised the objection, and they placed him on four or five Committees. On two or three occasions he brought forward matters concerning the A.V.C., and at last they shut his mouth by putting him on the War Emergency Committee. He would certainly very much like to see a reconstruction of the Council. At the present time the majority of the Council followed the lead of and supported about four men, whatever they said. As to the representation of Schools, he endorsed what Mr. Willett said: it was necessary that the Schools should be represented on the Council, but not by so many members; it was tantamount to this—that the Schools ruled the profession. Anything that a School representative brought forward was almost sure to go down, and obtain support of the majority of the Council. The whole profession must cast aside its lethargy. The majority, as soon as they obtained their diploma, took very little further interest in the politics of their profession, but he believed they were waking up a little. He could not say too emphatically that the condition of the Council would not be altered until they had fresh blood in it and the profession generally takes more interest in their work. So far as he could see the Council did not interest themselves in the welfare of the profession itself beyond what he might call the legal administrative part. They did not seem to interest themselves in the things nearest the heart of the general practitioner. The Council

should interest themselves in everything in which the profession was interested and give them the lead.

The resolution was then put to the meeting and unanimously passed.

#### LINSEED POISONING IN CALVES.

Mr. MALE said that his attention was drawn to linseed poisoning in calves by the sudden death of five calves from about one to five months old. Three were found dead in the morning and two were still alive but very weak. The stomach was distended, there was diarrhoea, clay coloured faeces but no temperature. The membranes were of a bluish tinge. One of the calves died later. A post-mortem examination showed slight congestion of the fourth stomach and of the lungs; otherwise the organs were healthy. It seemed very strange, and he made inquiries as to the feeding of the calves. He found they had had some linseed cake. He had a look at the cake; it was from a very good make and in good order and they had only been fed with it recently or about 24 hours, when the illnesses commenced. It was stirred up with water and milk and given in a sort of emulsion. It was not boiled. He sent a sample to University College, Reading, who forwarded it to Dr. H. J. Lloyd for analysis. He reported that the fermentation test produced a very strong aroma of mustard and he was of opinion that this was the cause of the troubles. He also said "It is not improbable that the enzyme in the mustard might evolve hydrocyanic acid from the linseed. But I have not tested this, and know of no evidence." It seemed to him (Mr. Male) very strange that that mustard should cause the symptoms he said; and he was not satisfied. It looked more like prussic acid poisoning especially considering the quickness with which the calves died.

Mr. VERNEY: Was there any fulness and rigidity?

Mr. MALE: Yes. He thought it over a lot, and consulted the authorities about mustard poisoning, but could not get any help. Then he happened to see an article from the Board of Agriculture which seemed to solve the whole problem. The article was as follows:—

"From time to time the attention of the Board is directed to cases of illness, or even death, of calves resulting from the use of linseed or linseed cake. In view of the widespread popularity of these foods for calf-rearing, it is obvious that such cases of trouble must be comparatively rare, but they serve to direct attention to the fact that a certain amount of care is necessary in the feeding of linseed or linseed cake to young stock. The risk is negligible with adult animals, and in the case of young animals only arises when the linseed meal or linseed cake has been *treated with water some little time before feeding*. It is due to the fact that linseed contains two substances which in presence of water tend to interact and produce small quantities of the deadly poison, prussic acid. This does not prevent linseed and linseed cake being very good and safe foods when properly used. All that is necessary is that if the linseed is treated with water at all it must be kept for a little time at practically *boiling temperature*. The safest plan is actually to boil the linseed with the water. If this cannot be done conveniently, and "scalding" is resorted to, it is necessary that the water should be absolutely *boiling* as it is poured on the meal, using at least *ten times* as much water as meal (1 gallon water to 1 lb. meal) and stirring carefully until quite free from lumps. If this procedure is followed closely the mixture should be quite safe to feed, especially if prepared *not long* before feeding time.

As a rule home-grown linseed offers less risk of poisoning than linseed imported from hotter climates, but there is no linseed meal (or cake) which cannot be rendered quite harmless if properly prepared for feeding in the manner indicated."

He brought the matter forward because he had never come across a case of poisoning in calves in that way. But evidently it had occurred before. As it was very fatal he thought it would interest the members. He would like to hear if any of them had found any similar cases.

Mr. VERNEY: I always advise that the linseed should be well boiled before giving it to young stock, but have had no cases of poisoning.

Mr. COLEMAN: I should like to thank Mr. Male for bringing the matter forward. I have never thought of anything of the sort before.

#### CALF DIPHTHERIA.

Mr. MALE: During the last two or three years I came across a number of outbreaks of calf diphtheria, and as there was not much literature on it and the cases were rather interesting, I thought a description of them might be useful. Other names for the disease are contagious and ulcerative stomatitis.

The disease is due to the necrosis bacillus, and it affects the young calf soon after weaning up to two or three months of age. Sometimes the outbreak is very virulent and a lot of calves die. At other times it seems to run more of a chronic course, and the calves recover. In one farm no less than 50 calves had died in the course of a year before I was called in. They could not wean any calves, and were in great trouble about it. I have usually found it where calves were kept in too great numbers in one shed, where the hygienic conditions were bad, where there was not enough sunlight, especially, too, when the food is poor. I have found one of the best means of treatment is to feed them well and give them plenty of milk. In the acute cases the calves are very ill. They lay down, are weak, have swollen glands, and all round the throat is very much enlarged. There are ulcers on the nose, on the lips, tongue and inside the mouth. When the mouth is opened they would see a white necrotic material on the side of the mouth and at the back of the throat. He supposed that was why it was called diphtheria. The calves dribble at the mouth, have a high temperature and are affected with diarrhoea. They will not eat, and breathe with difficulty with mouths open. They die very rapidly. I have seen as many as six and eight in one place dead with it. In other cases the disease seemed to be less acute; the calves look bad, do not thrive, and have necrotic ulcers in the nose, etc. A post-mortem examination shows great congestion of all the organs, especially the lungs and liver. All the glands are inflamed and congested, especially round the throat. There is also a good deal of inflammation of the bowels. As to treatment I find that putting them under the best hygienic conditions, getting them in the sun, separating them in several lots, the worst cases in one lot, those that are recovering in another lot, and the healthy calves in another lot; and then feeding them with plenty of milk. [Mr. VERNEY: That is what they don't get.]

I find that in the way of treatment it was extraordinary how they picked up with Permanganate of potash and Potassium chlorate. In the way of preventive treatment I advise the isolation of the affected calves. I do not allow a man to suckle the calves, because if they licked his fingers and he went from one to the other the disease would be spread in that way. I make them drink out of a bucket or a bowl, and disinfect it after each calf has drunk; or have a separate bucket for each calf. I also isolate the attendant, and do not allow him to milk, or, if he does, to do that before he attends to the calves, otherwise the organism would get into the milk and infect the healthy ones. I advise cleaning them out very frequently and sprinkling slaked lime over the bed of straw. When these measures are carried



out there seems to be no difficulty, and they soon get rid of the disease.

Mr. COLEMAN wished to again thank Mr. Male for his remarks, which were exceedingly interesting. He did not remember having come across such cases.

Mr. VERNEY said he had not had similar cases.

Mr. PARKER: I have never had any.

Mr. MALE: My experience seems to be unique,

The PRESIDENT thanked the members for the support they had given him during the three years that he had occupied the chair, and he was to be congratulated that at the last meeting, though it was small in numbers, it was most prolific in discussion. He thought they had moved in the right direction in getting a few remarks on the Council, and the work they had to look forward to with regard to repatriated men. They had also had two very interesting cases from Mr. Male, which showed them what difficulties the profession often had to face.

The HON. SEC. proposed a very hearty vote of thanks to the President for his splendid services during the past three years. No one knew the difficulties he had had to contend with during the war but he had stuck to his post and attended every possible meeting; and had helped the Association in more ways than one. He had induced a lot of new members to join, had brought his friends down, and had been simply splendid. (Applause.)

He was very pleased to propose that they give him their best thanks for all he had done.

Mr. COLEMAN: I shall be very pleased to second that.

Mr. VERNEY: I support it in every way. He has kept the society going under very adverse circumstances.

The vote was very cordially passed.

The PRESIDENT said his heart was in the work, and he had only been too pleased to do all he could.

## ARMY VETERINARY SERVICE

War Office, Dec. 20.

The following dispatch has been received by the Secretary of State for War:—

General Headquarters, Nov. 8, 1918.

My Lord,—I have the honour to submit a list of names of those officers, serving, or who have served, under my command during the period February 25, 1918, to midnight, September 16-17, 1918, whose distinguished and gallant services and devotion to duty I consider deserving of special mention.

I have the honour to be, my Lord, your Lordship's obedient servant,

D. HAIG,  
Field-Marshal, Commanding-in-Chief,  
The British Armies in France.

### COMMANDS AND STAFF.

Capt. (actg. Maj.) W. Ascott, R.A.V.C. (T.F.); Capt. (temp. Maj.) J. S. Bowden, R.A.V.C. (T.F.); Lt.-Col. (actg. Col.) R. L. Cranford, F.R.C.V.S., R.A.V.C.; Maj. P. W. Dayer-Smith, R.A.V.C. (T.F.); Capt. (temp. Maj.) R. A. Goode-ridge, R.A.V.C.; Capt. (actg. Maj.) E. Hearne, R.A.V.C.; Capt. (actg. Maj.) S. E. Holmes, R.A.V.C. (S.R.); Capt. (temp. Maj.) T. Lishman, R.A.V.C.; Maj. L. MacDonald, R.A.V.C.; Maj. (actg. Lt.-Col.) J. A. B. MacGowan, R.A.V.C.; Maj. (temp. Lt.-Col.) A. W. Mason, R.A.V.C. (T.F.); Col. and hon. Maj.-Gen. J. Moore, C.B., F.R.C.V.S. (late R.A.V.C.); Maj. W. W. R. Neale, R.A.V.C.; Capt. (temp. Maj.) C. E. Neill, R.A.V.C. (T.F.); Maj. (temp. Lt.-Col.) W. A. Pallin, D.S.O., F.R.C.V.S., R.A.V.C.; Capt. (actg. Lt.-Col.) E. W. Parks, R.A.V.C. (T.F.); Capt. (actg. Maj.) J. F. Rankin, R.A.V.C. (T.F.); Temp. Capt. (actg. Maj.) C. W. B. Sikes, R.A.V.C.; Capt. (actg. Maj.) F. B. Sneyd, R.A.V.C. (S.R.); Capt. (temp. Maj.) W. H. Taylor, R.A.V.C.

The King has been pleased to give orders for the following promotions and appointments for valuable services rendered in connexion with the war in India (dated June 3, 1918).

O.B.E.

Lt.-Col. GEORGE KEMP WALKER, C.I.E., F.R.C.V.S., Ind. Civil Vety. Dept.

War Office, Dec. 19.

The names of the following have been brought to the notice of the Secretary of War for valuable service rendered within the Union of South Africa in connexion with the Campaign in German South-West Africa and German East Africa:—

Maj. (temp. Lt.-Col.) J. G. Bush, S.A.V.C.; Maj. A. Goodall, S.A.V.C.; Capt. (temp. Maj.) S. I. Johnston, S.A.V.C.

Buckingham Palace, Dec. 19.

The King held an Investiture in the Ball Room of the Palace at 10.30 o'clock this morning.

The following Officers were severally introduced into the presence of The King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

THE MOST DISTINGUISHED ORDER OF  
ST. MICHAEL AND ST. GEORGE.

Lieut.-Colonel FRANK BALDREY, R.A.V.C.

THE DISTINGUISHED SERVICE ORDER.

Major PERCY SIMPSON, R.A.V.C.

Buckingham Palace, Dec. 21.

His Majesty held an Investiture in the Ball Room of the Palace at 10.30 o'clock.

The following were severally introduced into the presence of His Majesty, when The King invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

THE MOST DISTINGUISHED ORDER OF ST. MICHAEL AND ST. GEORGE AND THE DISTINGUISHED SERVICE ORDER.

COMPANION—Col WILLIAM SMITH, R.A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Dec. 19.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Capt. to be actg. Maj.:—T. L. Shea (Oct. 8, 1917).

Dec. 21.

Temp. Qrmrs. and Lieuts, R.A.V.C., to be Capts. under Art. 330, R. Wt. for pay and promotion:—J. Daunt (Nov. 2); H. Barrs (Nov. 9).

## DEMobilIZATION.—NO PRESENT RELEASE.

The War Office desires it to be known that officers and men cannot at present be demobilized from the following corps, which are essential to the work of demobilizing the Army:—Royal Army Service Corps, Royal Army Ordnance Corps, Royal Army Veterinary Corps, Remount Corps, Directorate of Military Railways (France), and Army Pay Corps.

Applications from members of these corps cannot be considered at present, even on the production of approved offers of employment from pre-war employers, but the fact that employment awaits an individual is to be recorded with a view to his being demobilized at as early a date as possible.

## SWINE FEVER ADMINISTRATION.

*The Editor, "The Veterinary Record."*

Sir,

I am very pleased to see letter in to-day's *Record* on this matter, as I have also considered as to whether one ought not to ventilate one's views on the point! It is most humiliating and unfair for an old established practitioner in a well known practice to be called in by his clients and to be forced to tell them that he cannot proceed further, and then to hear later that a young practitioner some miles away has attended; and in at least one case known to the writer the M.R.C.V.S. acting for the B. of A. is well under military age!

It is scarcely the way to make one very loyal to the Veterinary department of the B. of A.; and in addition, as your correspondent states, the distance involved is often great—so much for economy in petrol as practised by a government department.

21/12/18

Yours etc., FED UP.

Dear Sir,

I have read "Fairplay's" letter with great interest and consider he has faithfully represented the views of the country practitioner on the swine fever business. So far I have failed to see why veterinaries should be sent long distances to take over work which could be just as well—and in some instances more expeditiously—carried out by the man on the spot.

I prefer to remain "incognito" so will subscribe myself your "NEW CORRESPONDENT."

Sir,

I have read "Playfair's" letter re administration of Veterinary Department of Board of Agriculture, and consider it savours very strongly of jealousy. His *modus operandi* of supplying all Veterinary Surgeons with forms is impracticable; one might just as well say that every doctor should be a M.O.H.

If the duties of the Board's Veterinary Officer are so onerous, and limited to killing pigs and forwarding viscera to London, as Playfair states, then I should suggest the appointment of all butchers as fully qualified for the position.

I should have thought that with "Playfair's" extensive practice among prize stock he would not have wanted to stoop to the killing of pigs and forwarding of viscera to the Board of Agriculture.

Yours etc., COUNTRY PRACTITIONER.

## Linseed Poisoning.

The following letter appeared in a recent issue of *The North British Agriculturist* and *The Scottish Farmer*. The official leaflet states distinctly that cases of this poisoning occur sporadically, and this experience endorses the statement. It also demonstrates that the causal trouble is still unknown—whether of soil, of ripeness, or of storage:—

"I have, for upwards of twenty years, invariably fed my calves on some form of linseed—linseed oil cake meal, etc., and though preparing these meals in the very way to encourage poisoning (according to the article referred to), I never saw any bad results. In fact I have had each year about the best calves to be seen in the district. I would like to hear what others have to say on the subject. I first mix the meal in sufficient cold water to form a smooth paste, then allow it to stand for twelve hours. An equal amount of hot water

is added before feeding, the whole being mixed with skim milk.

Mixing oilcake meal with boiling water is impossible as it forms into lumps which cannot be broken up. Mixing with cold water and then bringing to the boil works well, but I am afraid most farmers would consider this too much trouble."

## OBITUARY.

GUILLAUME FRANÇOIS MARAIS, B.A., B.Sc., M.R.C.V.S.

Volksrust, Transvaal.

Graduated, Lond: Dec. 1913.

## Death of Mr. G. F. Marais.

Volksrust, Saturday.—The death of Mr. Guillaume François Marais, Government Veterinary Surgeon at Volksrust, has deeply moved the community. When the epidemic assumed alarming proportions, the committee in charge of relief measures sent to the Government an urgent appeal to release for the time being Mr. Marais from Government duties that he might assist in fighting the plague. This being granted, the deceased officer threw himself with energy into the work, toiling day and night. His duties took him to the Railway Compound, where he ministered to the stricken families, and in this notorious region contracted the disease which cost him his life. A well-known Pretoria doctor, a friend of deceased in his student days who, on learning of the illness of his friend at Volksrust, came down specially to help him, has written a memoir eulogy, in which he condemns the compound. After Mr. Marais' death, will the Railway Administration, it is asked, now rise to its responsibilities and provide decent sanitary dwellings for its white workers—Deceased, who was 33 years of age, was transferred to Volksrust from Pretoria. He had endeared himself to the community, and was unusually esteemed. At the the coffin was covered with floral wreaths.—*Rand Daily Mail*.

[The date of death is not given. The correspondent who sends us the cutting dates from the Veterinary Research Laboratory, Onderstepoort, Nov. 14, and we may conclude from that that Mr. Marais' death occurred about a week previously.]

ROBERT ELLIOTT, late Major R.A.V.C. Putney,

London, S.W.

N. Edin.: Dec., 1902.

Major Elliott, who had been in ill-health for some time past, died on Friday, 20th inst.

Mr. LAWRENCE C. TIPPER, of Messrs. B. C. Tipper & Son, Birmingham, received a pressing invitation to come forward as a non-party candidate for the Mosley Division of Birmingham. After considering all the circumstances, he decided not to seek election. Mr. Tipper has worked for years to secure allotments and small holdings, but he considers it illusory and foolish to suggest their creation on the gigantic scale foreshadowed. He believes in placing suitable men on the land in suitable places. Along with this it must be provided that the agriculturists get a satisfactory recompense for their labour as the artisan.

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

Communications for the Editors to be addressed

20 Fulham Road, London, S.W. 3.

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1591.

JANUARY 4, 1919.

VOL. XXXI.

## AN ACCOMPANIMENT TO DEMOBILISATION.

At the meeting of the Royal Counties V.A., reported last week, the probability that we may have "a large number of ex-A.V.C. sergeants dumped down all over the country" in quest of veterinary employment was referred to by Mr. Male, and several instances in point were mentioned. There is no doubt that this is a very real and serious danger; and we should be prepared to face it without any illusions.

The ex-N.C.O. who has gained some Army veterinary experience has long been familiar to us. Long before the Army Veterinary Service possessed a subordinate staff of its own, ex-farrier sergeants and the like were accustomed to advertise themselves as being capable of taking "complete veterinary charge" of studs. Some of them were by no means ignorant, and succeeded in obtaining much work that ought to have been performed by our profession. The present N.C.Os. of the R.A.V.C. are much more dangerous than these men, because generally more efficient. They have been trained by and have worked under veterinary officers, and many of them have now had considerable experience in equine diseases and injuries of almost every description. Many, also, in these days of universal service, are much better educated than were most N.C.Os. of the old voluntary Army. The best of them are probably far superior to the bulk of the now rapidly disappearing Registered Practitioners; and they may prove the most formidable unqualified opponents we have ever had to face.

A good deal of this opposition seems practically inevitable. The Council can deal with men who infringe our Act; but it is not in the least likely that any additional legislation against unqualified practice can be obtained. Thus it will be possible for these men to compete a good deal with us on an unqualified footing; and we must see to it that their hands are not made stronger than they already are.

One immediate precaution may do something to lessen the evil. Veterinary officers can exercise the greatest care in the wording of any testimonials or recommendations to men who have served under them in the R.A.V.C. This does not mean that deserving subordinates should not be well recommended; it simply means that all such recommendations should be framed to exclude the idea of anything like complete veterinary knowledge and efficiency on the part of their possessors. With care, this can be done without injustice. A little carelessness, on the other hand, may produce a testimonial which may be used as a glowing advertisement.

## OUR REPRESENTATIVE CONSTITUTION.

In an article entitled "Medical Schisms," the Medical Correspondent of *The Times* discusses (Dec. 30) the present situation of domestic politics in the medical profession. The recently-formed Medico-Political Union has been steadily gaining ground on its rival, the much older organisation "The British Medical Association." The latter is making strenuous efforts to become the representative professional body, though its future prospects are somewhat dubious.

"There is no body, indeed, which can claim to speak for all the doctors in the country except the General Medical Council, and the claim of that body has scarcely been advanced seriously. The extent of this misfortune is far greater than generally recognised, and will increase as time passes. It is in the nature of things that statesmen should wish to have medical advice on matters of medical policy. Whom are they to consult?"

The Royal College of Physicians, nor the Royal College of Surgeons, nor the British Medical Association can be called representative, and the suggestion is made that the time has come to remedy this defect by setting up a central medical representative body.

"Every registered medical practitioner should have as many votes as there may be places on this body and voting should be by post. Elections should take place once a year. The new body should thus be representative of the profession as a whole, and could deal in the name of the profession with any minister."

And the public would have the advantage of considered medical advice on the great health questions about to be dealt with.

The organisation here proposed as an ideal for the medical profession follows exactly the lines of the constitution of the Council of the Royal College of Veterinary Surgeons. While the Royal College of Surgeons still deprives its members who are not Fellows of the right to vote, the veterinary profession vigorously repudiated this anomaly in those lively days preceding the 1892 Charter, and it was then and there abolished. Something has been said recently on the question of the constitution of the Council, and the need for "new blood" but it is obviously not the system which is at fault. If the Council is not what it should be the remedy lies easy to hand. The Council is elected by the suffrages of the profession, and if it is alleged that it is not representative of the profession, the blame is on the profession and not on the Council. If the profession can find candidates for election to the Council, who will do better than any of the present members, now is the time to nominate them. The voting papers for the next election will be sent out to members outside the United Kingdom at the end of January.

There is one reservation as to the selection of councilmen which should not be lost sight of, especially in so small a body. A member is elected for a term of four years, and in most cases this term is considerably increased by re-election. In an emergency, such as, for instance, the Charter of 1892, it may become advisable to elect men who have strong opinions on a particular question: but unless the men so elected are men of known capacity, this procedure may result in burdening the Council with a group of nonentities for years afterwards.

### TRIORCHIDY IN THE HORSE.

In the spring of 1918 you published several communications anent a case of castration which ended in an unfortunate manner to the operator and also to the profession. According to the published evidence on both sides I came to the conclusion that the practitioner, against whom the case went, was speaking the truth—that he did remove two testicles. I intended at the time to offer some remarks on the case, but, unfortunately, something occurred to attract my attention elsewhere and so forgot the incident.

Personally, I think the case was one of *triorchidy*—one in which the animal was the carrier of three testicles, of which only two were apparent at the

Sometimes the third testicle may be apparent at the time of the removal of the other two, but mostly this descends at a later date, even as late as a year after the first operation.

There are many such cases recorded in our annals, and it has also been described by several masters of veterinary surgery.

It is a pity the victim in the law case did not proceed for a new trial and call expert evidence to clear not only his own good reputation, but also to safeguard the profession against a further charge of unskilfulness—which it amounted to.

SCRUTATOR.

### THE CENTRAL VETERINARY SOCIETY.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

An ordinary general meeting was held on Thursday, December 5th, at 10 Red Lion Square, London W.C., the President, Prof. G. H. WOOLDRIDGE, occupied the chair.

The following signed the attendance book:—Messrs. N. Almond, J. B. Buxton, W. R. Davis, H. Gray; Maj. F. Hobday, R.A.V.C.; Messrs. Herbert King, W. S. King, J. W. McIntosh, H. G. Parkin, W. Perryman, R. A. Philp, J. Rowe, F. G. Samson, C. Sheather, F. H. Stainton, W. N. Thompson, and Hugh H. MacCormack, Hon. Sec.

*Minutes.* On the motion of Mr. Davis, supported by Mr. Almond, the minutes of the previous meeting were taken as read.

*Correspondence.* The SECRETARY announced that he had received postcards from Mr. Woolston and Mr. J. Willett regretting their inability to attend, and also a letter from Mr. Stroud, intimating that he was a victim of influenza.

It would be remembered that, at the last meeting of the Society, he (Mr. MacCormack) had been requested

to communicate with Mr. Whitlamsmith with regard to that gentleman's resignation. He had made this communication, and had received the following reply:—

"Thanks very much for your letter and many thanks to the Fellows. I have been going to resign for years, as I never seem able to get to the meetings. I shall be pleased if you will now accept my resignation. Kindest regards."

The PRESIDENT: As Mr. Whitlamsmith adheres to his resolution to resign, we have no alternative but to suggest that the resignation be accepted. Mr. Rowe proposed, and Mr. Samson seconded a motion to that effect, which was accordingly carried.

The Secretary further announced that he had received *Bulletin No. 77* from the Agricultural Research Institute, on the subject of Camel Feeding Experiments, by Mr. H. E. Cross.

The PRESIDENT said that the articles by Mr. Cross on the subject named were good articles, and he thought the thanks of the Society were due to Mr. Cross for the *Bulletin* he had sent. A letter of thanks from the Society would be sent to Mr. Cross.

### RE-ELECTION OF PROF. J. MACQUEEN.

Prof. WOOLDRIDGE recalled the fact that about a year ago Prof. Macqueen had expressed the opinion that in existing circumstances the Society would do well to adjourn its meetings, and, consistently therewith, had withdrawn from the Society, in spite of the request that he should retain his membership. Prof. Macqueen had, however, intimated that when hostilities ceased he would doubtless rejoin the Society. Also he had told the speaker, before the signing of the armistice, that he intended to proceed to re-election, as he felt the war was drawing to its end. Meantime, the Professor had sent in his request to the Secretary, and the matter had been put on the agenda. [The President therefore called for a ballot, which, being taken, showed that Prof. Macqueen had been unanimously re-elected.]

### COCCIDIOSIS IN THE RABBIT.

J. B. BUXTON, F.R.C.V.S., D.V.H.

The increasing value of the rabbit as an article of food during the last few years has proportionately increased the significance of epizootics to which these animals are susceptible. The prevalence of coccidiosis is undoubtedly far more extensive than is generally supposed, and is of considerable economic importance.

The predisposing causes of the disease are primarily, of course, the introduction into the rabbitry of infected stock, insanitary conditions of housing, and general unhygienic principles of feeding, etc.

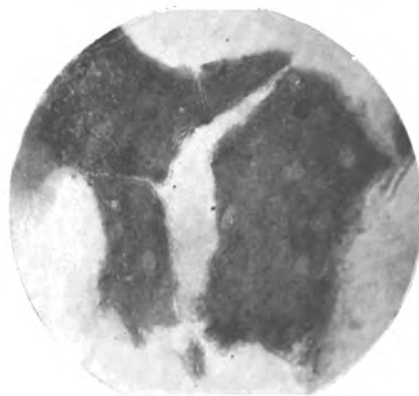
The causal agent is the *Coccidium oviforme* (C. cuniculi or Eimeria stiedæ).

The Coccidiidae are sporozoa of the sub-division Telosporidia, in the life-cycle of which the re-productive phase is distinct from the trophic.

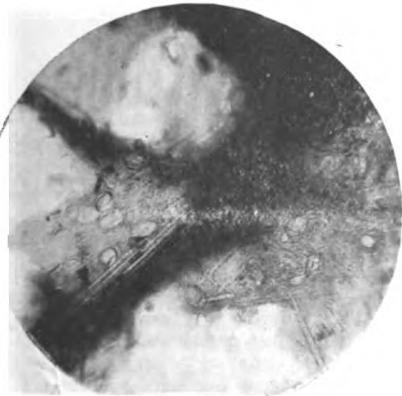
The Coccidia are small oval bodies with granular protoplasm and a nucleus.

Reproduction is both sexual (Sporogony), and asexual (Shizogony). The form of parasite most commonly observed consists of an oval cell 20-40  $\mu$  by 15-20  $\mu$  with a well-marked wall or cell envelope surrounding a mass of granular protoplasm which frequently only partially fills the cell, and has a more or less centrally placed nucleus. Such forms represent the final stage of the life history of the parasite in the animal body; they are called Oocysts.

The life cycle of the parasite is somewhat complicated, but in order that the spread of the disease may be satisfactorily limited some knowledge of the manner of reproduction and of its various phases is essential to the clinician. The oocysts are expelled from the body with



Coccidia sporulating in rabbit faeces.



Coccidia in rabbit faeces.



Oocyst.



Sporoblasts.



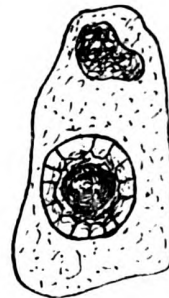
Sporocysts.



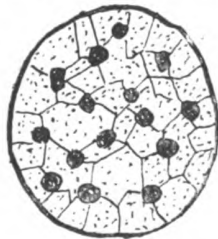
Sporozoites inside Sporocyst.



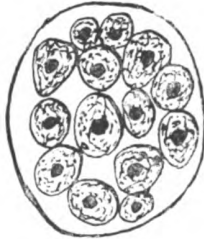
Formation of Schizont.



Formation of Schizont.



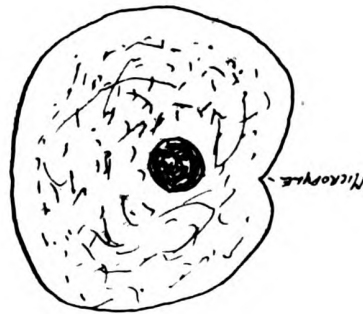
(a) Multiplication of Nucleus.



(b) Multiplication of Cell.



(c) Formation of Merozoites.



Macrogamete.



Microgamete.

# COCCIDIOSIS IN THE RABBIT.

To illustrate paper by Mr. J. B. Buxton, F.R.C.V.S.





the faeces, and under favourable conditions of warmth and moisture the cell contents divide into two, and then into four spherical bodies called Sporoblasts. These sporoblasts elongate and become sporocysts, each of which later divides into two crescentic bodies—falciform corpuscles or sporozoites.

The mother cyst, that is the cyst containing the original sporocysts is very resistant to adverse conditions and retains its vitality for very considerable periods, probably longer in dry than in moist surroundings.

If a rabbit ingests such a cyst, the wall becomes dissolved and the sporocysts are liberated. These in turn, rupture and set free the sporozoites or falciform corpuscles. These are actively motile bodies which penetrate, by means of their sharp anterior extremities, into the interior of the epithelial cells of the small intestine or bile ducts, lose their motility and become schizonts.

**Schizogony (Asexual reproduction).** The schizont is a spherical, non-encapsulated body which contains a nucleus and several vacuoles; and it grows at the expense of the epithelial cell. The nucleus soon divides into a number of daughter nuclei each of which becomes surrounded by a mass of the cell protoplasm which assumes a crescentic form, so that the bodies resemble the quarters of an orange, these are called merozoites. The epithelial cell ruptures and the merozoites are set free, many die, but others penetrate fresh epithelial cells where they (a) lose their motility, and again become schizonts, so repeating the process, which is extremely rapid, and accounts for the very quick spread of the disease in the infected animals, or (b) become converted into male or female elements—microgametes or macrogametes.

**Sporogony (Sexual reproduction).** Cells which are destined to become macrogametes increase slowly in size and develop numerous chromatin granules. The macrogamete by means of contractile movements reaches the surface of the epithelial cell where it becomes spherical, non motile, and exhibits a well marked nucleus and an enveloping membrane with a break in its continuity at one point, the micropyle.

Cells which are about to become microgametes grow rapidly, the nucleus breaks up into numerous fragments, which become arranged round the periphery of the microgametoblast, and each nucleus then becomes surrounded by a mass of protoplasm. The nuclei become elongated and comma shaped, and two flagella appear towards the anterior extremity. These are the microgametes which on account of their flagella are motile, and soon become free of the microgametoblast and closely resemble the spermatozoa of the higher animals.

The microgametes are attracted by the macrogametes, a single male element penetrates the female cell at the micropyle which then closes. The microgamete fuses with the nucleus of the macrogamete so forming the oocyst or zygote and the cycle is completed.

#### LESIONS.

There are two types of lesions—the hepatic and the intestinal. The former may be called the chronic form of the disease when it occurs alone, and the intestinal or the coexistence of the two types constitute the acute form of the disease.

The hepatic type is the more frequently observed, because it is the less fatal and the more obvious on post-mortem examination. It is characterised by the formation of abscesses which originate in the epithelium of the bile ducts and have a ramified appearance. These abscesses may be few in number and appear as small whitish areas in the liver substance, or they may be so numerous as to give the organ a distorted, lumpy,

appearance. The disease may resolve spontaneously, in which case, upon post-mortem examination, one only sees cicatricial scars upon the surface or in the substance of the liver.

In young rabbits the disease frequently runs a very rapid course, in which case the hepatic lesions are more generalised, the bile ducts are dilated and white streaks resembling the roots of a tree, produced by these dilated ducts, are seen radiating in all directions.

The process begins by the invasion of the epithelium of the bile ducts by the coccidia which result in the destruction of the cells. Later there is a marked hyperplasia of the epithelia and a papillary proliferation of the bile ducts so that they become much branched cavities instead of simple canals. The connective tissue becomes hypertrophied, producing at first a venous congestion and later atrophy of the gland.

The internal organs are pale in colour, while the blood appears to be watery and there is an absence of fat in the abdominal cavity.

A section of the liver, upon microscopic examination shows that the abscesses are formed by greatly distended bile ducts, partly fused together and separated from the hepatic tissue by fibrous tissue, these contain immense numbers of coccidia in the epithelial cells lining the ducts.

In the intestinal form, which is most frequently brought under one's observation in the case of young rabbits, the lesions are most marked in the first few inches of the small intestine. There is a general redness and some thickening of the mucous membrane, with small areas of a more intense colour which later develop into minute nodules. Occasionally the area of congestion involves the stomach also, in which case the organ contains a small quantity of watery mucus, but no food.

Microscopically a scraping of the mucous membrane reveals numbers of the coccidia. A section of such an intestine shows large numbers of the parasites in the epithelium of the tubular glands.

#### SYMPTOMS.

When one's attention is called to an outbreak of the disease in a colony, the adult animals, although suffering from the chronic hepatic form of the disease may show no symptoms. Young rabbits however appear to be generally unthrifty, their coats are staring, the mucous membranes are pale and they are badly nourished and obviously "pot bellied." Diarrhoea is often present, but the faeces are seldom blood stained. There is loss of appetite, the emaciation gradually progresses, the animal becomes slowly weaker and finally dies.

In other cases the animal is "pot bellied" and generally unthrifty, but, the appetite remains fairly good, and death takes place suddenly as a result of an obvious intoxication.

#### DIAGNOSIS.

During life the condition may be diagnosed by the microscopic examination of watery suspensions of the faeces. The oocysts appear as oval bodies closely resembling the ova of nematode worms. In some instances parasites are seen in which the protoplasmic contents show changes associated with the earlier stages of reproduction. In chronic cases it is usually necessary to make many examinations of the faeces at frequent intervals, since the expulsion of the oocysts is not continuous, but depends upon the periodic breakdown of old lesions.

#### TREATMENT.

**Preventive measures.** When the disease makes its appearance in the rabbitry the animals which show no symptoms should be removed to clean and hygienic quarters and should be strictly isolated. All obviously

infected animals should be killed off, but when this is not possible they should be segregated into small groups.

The tame rabbit is by nature a cleanly animal, and invariably selects a certain area of its habitation for the deposit of excreta. Cleanliness is essential, all faeces should be burnt and the hutches scrubbed thoroughly with a hot solution of Lysol or other reliable disinfectant. Foodstuffs which may by any chance have become contaminated should be used only for animals which are known to be infected. Since the parasite is transmitted from animal to animal by means of the faeces or food contaminated by them, any ground upon which infected animals have been should be dressed with lime and, when possible, dug over.

**Curative treatment.** It is better not to attempt curative measures. If, however, it is decided to do so, tonics should be given, especially sulphate of iron and, because the animals eat it so readily in their food, gentian. In the intestinal form and in the early stages of the disease, disinfectants, such as Chloramine T, may be given by the mouth in small gelatine capsules. The food should consist of dry concentrated material and wet greenstuff. Roots and bran should be avoided. Clean cold water should be available at all times.

#### MEAT INSPECTION.

From this point of view the flesh of infected rabbits cannot be considered as dangerous to health. In the acute type of the disease its value is, of course, impaired owing to the serious disturbance of health, and in severe cases in which there is marked emaciation the flesh would be considered unfit for human consumption.

#### COCCIDIOSIS IN OTHER ANIMALS.

*C. oviforme* is considered by Guillebeau as the causal agent in red dysentery of cattle (dysentery haemorrhagica coccidiosa) frequently seen in parts of Switzerland, and occasionally in other European countries. The parasite may be demonstrated in the blood-stained faeces and in the mucous membrane of the colon of infected animals. It is from 20 to 25  $\mu$  by 15  $\mu$ . Infection experiments have reproduced the disease.

A coccidiosis of sheep has been observed in the United States of America and in Europe. The lesions are usually confined to the intestinal mucosa and especially that of the small bowel, but may also be seen occasionally in the fourth stomach. The mucous surface becomes studded with small nodules from  $\frac{1}{4}$  to  $\frac{1}{2}$  of an inch in height. The coccidia are found in the epithelium of the tubular glands associated with the conical outgrowths.

In birds, *C. avium* or *Tenelleum*, which is probably identical with *C. oviforme*, is responsible for several pathological conditions. Blackhead or enterohepatitis of turkeys, some forms of white diarrhoea of chicks and of young artificially-reared pheasants, and possibly some forms of roup in fowls have been shown to be caused by coccidia.

The coccidium described as *C. perforans* or *C. hominis* and found in the epithelial cells of the intestine of man and of rabbits has been shown by Rivolta and Metzner to be the same species as *C. cuniculi*.

Cubler and Silcocks have described the occurrence of purulent cysts in the human liver in which coccidia, identical with those of the rabbit, were found to be actively multiplying.

*C. bigeminum* is responsible for a haemorrhagic enteritis of dogs and cats, and is probably the same parasite as that found by Kjellburg in the intestinal villi of a man and should be classified with the diplospora—a genus closely related to the coccidia, and characterised by the fact that the oocyst produces two sporocysts each of which gives rise to four sporozoites.

*C. fuscum* was considered by Olt to be responsible for a granular eruption on the pig's skin. As a result of the examination of serial sections of such skin he found that the pathological process arose in the sweat glands, in the epithelia of which coccidia of a somewhat brownish colour were multiplying.

The genus coccidium comprises about forty species which are parasitic in mammals, birds, reptiles, fish and insects.

#### DISCUSSION.

Mr. GRAY opened the discussion. Personally, he thanked Mr. Buxton for his interesting paper, because he felt that the subject, which came within the province of veterinary medicine, was one which should be ventilated by the veterinary profession, instead of being left to outsiders to bring before the public. Having been a rabbit keeper all his life, he knew something of the disease under discussion. He noted, however, that Mr. Buxton appeared to overlook the fact that in this country, coccidiosis had been observed, in cattle and sheep, by several members of the profession, from Sir John McFadyen downwards. Probably it was much more prevalent than the majority suspected. Mr. Buxton had stated that the parasite which caused the disease in rabbits was the same as that which occasioned it in birds. Anent this he would say that Dr. Fantham, the distinguished zoologist of the School of Tropical Medicine, Liverpool, had investigated the disease in birds more considerably than anyone else in the country, and had concluded that the coccidium of the rabbit and that of the bird were different. This view agrees with that held by most of the eminent zoologists who have given it attention on the Continent of Europe.

Mr. Buxton had remarked, further, that the disease was common in wild rabbits, a remark supported by Dr. Sheridan Delépine, of Manchester, who, many years ago, asserted that the disease occurred in 92 per cent. of wild rabbits. Certainly in some years it was common. The speaker recalled his own experience in endeavouring to "pot" rabbits in the outskirts of woods during summer evenings, and had found that the animals he succeeded in "potting" were generally affected by coccidiosis. He assumed that those that were alert in not allowing him to get within range of them were the more healthy rabbits.

With regard to tame rabbits, he was of opinion that infestation in country districts was mostly caused by owners collecting food from plantations and other places where wild rabbits existed. He had sent from London tame rabbits, perfectly healthy, to his place in the country, and they had contracted coccidiosis in, as he believed, the manner he had just described, and they had died of it. His experience was that young rabbits did not always die from the intestinal form, but sometimes from the hepatic form of coccidiosis. He had experience with young rabbits—seven or eight months old—sent up from Somerset in an apparently healthy condition, which had died within a couple of weeks of arrival in London. The post-mortem revealed rigid and friable intestinal walls, dotted all over with small white spots, and lined by a mucous membrane that resembled sand-paper. The symptoms were profuse diarrhoea and a total loss of appetite. The livers were perfectly sound.

With regard to the danger of coccidiosis to man, he thought that if there were any risk the disease should be very common; but he did not credit infestation in man, nor in cattle—from rabbits; on the contrary, he believed that the parasites were peculiar to the host species, and were not identical. He noticed that this year there had been few wild rabbits about. Was it due to the fact that in consequence of the high price obtained for them last winter farmers were induced to

kill them down? Or was it due to coccidiosis? When in Essex last spring he had seen numbers of dead rabbits lying about, and, although he had not made a post-mortem, he suspected that in these cases death was due to coccidiosis. In conclusion, he again thanked Mr. Buxton, who, he hoped, would settle the question of whether coccidiosis in the bird and in the rabbit was intercommunicable. Mr. Buxton had not referred to hæmorrhagic enteritis, where the intestines were filled with blood. The speaker had seen that both in the rabbit and the bird, and the oocytes were generally very numerous; this occurred not only in young chickens, but also in adult cage birds—not excluding the shrike.

Mr. THOMPSON who spoke next, observed that he attended the meeting, though late, because he felt that he had been instrumental in getting Mr. Buxton to read the paper. He could not say much on the subject of coccidiosis, as a breeder of fancy rabbits and as a veterinary surgeon, he occasionally had carcasses sent to him for his opinion as to the cause of death. He had had several cases in which he had been able to demonstrate, from the yellow pin heads in the liver, the presence of coccidia. In the majority of the cases the outbreak had been very severe, as many as 30 animals being affected, all dying. The symptoms had been a semi-fluid condition of the bowels, and everything pointing to general debility. The age of the rabbits was from one month to ten weeks, but he had not observed the disease in any case where the rabbit was above ten weeks old. The liver showed small yellow patches. A muco-enteritis was present, but he had not seen hæmorrhagic enteritis. Until the last season he had seen practically nothing of the disease. During the last four weeks, his son had lost three valuable covies which were apparently in a normal healthy condition and found death in about six hours. Post-mortem revealed muco-enteritis; no other lesions presented. He was at a loss to account for the enteritis. They were in different pens, and their companions were not affected. The results of microscopic examinations from scrapings of the bowels and faeces were negative. He would ask Mr. Buxton whether coccidiosis of the rabbit was pathogenetic to the cavy. The speaker felt, with Mr. Gray, that the question raised by the paper needed thrashing out, especially in view of the present high value of fancy stock, £80 having recently been refused for a rabbit.

Major HOBDAV pointed out that the rabbit had assumed considerable importance, small animal as it was, during the war. Large rabbitries had been maintained in connection with all the bigger hospitals abroad, and, if only as a change from the good old roast beef of England, the rabbit had proved of the utmost value, indeed rabbit-keeping had become an industry. Some 100 to 150 rabbits provided a change of food in all large hospitals, containing, perhaps, 500 to 600 men, and were much appreciated. With regard to coccidiosis every care was taken in introducing new stock, either French or Italian, to subject them to examination and keep them under observation for ten days to three weeks before placing them in communication with other rabbits. Abroad the people were fully alive to the danger of infection, but, so far as the speaker was concerned, he had not met with coccidiosis. Had they noticed it, it would, of course meant the killing off of the entire stock and making a fresh start. Mr. Buxton's paper would be of great value abroad as well as in England.

Mr. Samson said that many years ago he was consulted respecting Banstead Park, where a large number of rabbits were dying off. He had made post-mortems at intervals of a week or fortnight, and the trouble continued for about three months. He had concluded that tuberculosis was the cause of death, but he did not then know better. The liver was spotted with what he

regarded as tubercular cysts, and he advised killing all the rabbits. They were shot down as closely as possible and quicklime was spread round the coverts and in the warren, which was then shut up for twelve months. He had not heard that the rabbits were afterwards infected. In Carshalton Park the same thing occurred two years later, and the same treatment was adopted, and the place kept closed for two years. Mr. Coleman was living there at the time and, in order effectually to get rid of the mischief, used many tons of lime and shut the place up for two years. There had been no outbreak since.

Mr. H. A. MACCORMACK had met coccidiosis mostly in wild rabbits. Like Mr. Samson, he had confused the disease with tuberculosis until Mr. Gray opened his eyes to the fact that it was coccidiosis. He considered the treatment adopted by Mr. Samson to be the best, and he had always taken that course when consulted respecting infected rabbits. He had seen several cases of what might be called the epidemic form, and his earlier experience had been chiefly with liver cases—little white spots covering the whole of the liver, varying in size from a pin's point to half a pea. Mr. Buxton had said that the hepatic was the chronic form and that the animals did not die so rapidly as with the intestinal form; that the hepatic was chiefly met with in the older animals and the intestinal form in the younger rabbits. In the latter case the course of the malady was very quick and the mortality great. Being interested in the treatment, he noted that Mr. Buxton fell back upon an old remedy, sulphate of iron. He believed, however, that the rabbit would take carbonate of iron more readily than the sulphate—in the form of powder. In conclusion he thanked Mr. Buxton for his very interesting paper.

Mr. DAVIS followed previous speakers in thanking Mr. Buxton for bringing his subject forward.

The speaker had only a limited experience of intestinal coccidiosis. He had met the disease many times in the older wild rabbits, but, until recently, only in the hepatic form. He had during the past few months, however, seen several outbreaks in young rabbits. One he had sent to Prof. Wooldridge, who suggested coccidiosis, and the speaker had found it was so. He had been struck by the fact that the cases of intestinal coccidiosis with which he was acquainted were all of young rabbits, under ten weeks old, and had, further, been impressed by the suddenness with which death supervened. A rabbit owner had told him that he was able to indicate particular rabbits that were going to die, though apparently healthy. Surely enough, animals all right in the morning were dead by night. He did not place faith in treatment, believing that the only thing to do was to clear them out, and after disinfection leave the place vacant a long while.

Mr. McINTOSH stated that he had very little experience of the disease. Some years ago, when acting as Inspector under the Public Health (Scotland) Act, he had seen quite a number of cases in the sheep. The symptoms in that animal corresponded closely with those so well described by Mr. Buxton in relation to the rabbit—a gradual loss of appetite, yellow membranes, pendulous belly, swelling underneath the jaw, frequently diarrhoea and rapid weakness—in fact, symptoms very similar to those seen in the same animal in "fluke" disease. The speaker had seen the liver of sheep so extensively covered with little nodules that its substance was scarcely visible. He had been asked to advise as to treatment, but had never achieved success in the treatment of infected animals. He thought, however, it was possible to stamp out the disease by attention to pastures—where that was practicable. He believed in a dressing of salt or lime, and the fencing off of the infected area for six or, better, twelve months.

From the standpoint of the life history of the parasite he regarded the paper as exceedingly interesting.

The PRESIDENT added his quota of thanks for Mr. Buxton's paper. There were one or two points he would raise by way of supplementing the paper. He would refer, especially, to the existence of diarrhoea in young rabbits affected with coccidiosis, regarded by Mr. Buxton as a constant symptom. Mr. Buxton had not, however, referred to the frequency with which there was no diarrhoea—in which the droppings were quite firm, well formed, and distinctly mucus-coated; a little shred of firm mucus, looking as if it were actually a shred of membrane, could, in some instances, be seen. That, of course, was not common; most frequently the condition of the excreta was soft.

Another notable point was the extreme emaciation, and the fact that, in actually handling the rabbit, the transverse processes of the vertebrae very nearly pierced the skin. Practically nothing was to be felt in the abdomen; although bulky, there were no ingesta. This year he had seen more coccidiosis than he had ever seen before—due, perhaps, to more intensive cultivation of rabbits—and had been struck by the relative infrequency of the hepatic form, and the greater prevalence of the intestinal form, formerly overlooked. In the older books only the hepatic form would be found described. With regard to the lesions, he had not seen one per cent. in the cases of hepatic coccidiosis; and, as had been pointed out by many speakers, the intestinal form had occurred principally in the younger rabbits. Mr. Buxton had emphasised a point of great importance in connection with the periodic examination of the ejecta for coccidia, for the reason that, while it was assumed that microscopic examination would be certain to reveal coccidia if any were present, in certain faeces it might be necessary to make several different examinations before it was certain that coccidia were present, even when, from a clinical examination, there seemed no doubt at all. Among the precautions put forward by Mr. Buxton was one to the effect that contaminated foods should be used only for rabbits known to be affected. The speaker felt, however, that Mr. Buxton's sense of economy had run away with him. Where was the advantage of giving an infected rabbit an increased dose of infection? If the object was to assist the killing, why not kill the rabbit in the first instance, and not waste more food? If, however, the food were positively known to be contaminated, why not use it for other and less susceptible species of animals, if it should be used at all? Positively contaminated food would be small in quantity, and its destruction would be no great loss. Certainly it should not be used for young rabbits, in which coccidiosis was much more virulent than in the adult animal. In relation to the circumstance that young rabbits contracted the disease from the doe, while the latter showed no symptoms of it, this was due to the greater resistance in the adult, and would account for the headway made by the disease at the present time. An apparently healthy doe was bred from, and it was not until the disease had developed in the litter that its existence in the doe was realised. It had then to be decided whether to kill the does or attempt to rear a fresh litter. The decision should rest on the actual value of the doe, which, if not intrinsically valuable, should at once be killed. If of great intrinsic value, particular care should be exercised in regard to droppings; the hutch should be visited frequently during the day, and any faeces at once removed, the food both of the doe and the young being placed where it could not possibly be contaminated by the doe's droppings. Even so, there was danger from the udder; the teats would sometimes be soiled by the doe's excreta. Still, in this way the danger would be at least reduced.

Like Mr. Buxton, Prof. Wooldridge recommended sulphate of iron for treatment, although it was absolutely useless in the case of young rabbits that had begun to show symptoms. If it was to be of any service at all, it

should be used directly coccidiosis made its appearance in the hutches, and be given to all the rabbits, whether showing symptoms or not. Only in that way would the disease be kept in check. When clinical symptoms became apparent, treatment was useless.

Turning to wild rabbits, coccidiosis was met with to a far greater extent than in the tame ones, until recently. It was well known that the disease would exterminate whole warrens. Overstocking of rabbit warrens was the most prolific source of the disease, just as overstocking a farm with sheep and lambs was a prolific source of verminous troubles in that species. When coccidiosis was found in a rabbit-warren the lines laid down by Mr. Samson for the extermination of his suspected tuberculosis could not be improved upon. The length of time that such a warren should be closed down was a matter which Mr. Buxton might aid in determining; it would be interesting to know actually how long, under natural conditions, the coccidium could retain its vitality. The problem was perhaps a difficult one; it was one which had not so far been properly worked out. If the coccidium could only retain its vitality for one season, closing the warren for one season would suffice to get rid of it. If it could keep its vitality for two seasons—and some of the phases of the coccidium were intensely resistant—closing down for one season would be insufficient, but might serve to reduce the disease, especially if accompanied with the free use of quicklime or salt, or both.

Another point of interest was Mr. Buxton's statement that blackhead in turkeys had been proved to be coccidiosis. Of that the speaker had been unaware, and was doubtful whether it had now been positively ascertained. He would ask Mr. Buxton if he had met the condition of blackhead in guinea-fowls, and, if so, whether coccidia had been found? He specifically raised that question, as sometime since he had had guinea-fowls sent to him which presented all the indications of blackhead, such as that known in turkeys. He confessed ignorance as to the cause, and was not, meantime, convinced that blackhead in either species was due to coccidiosis. He had been interested to hear of coccidiosis in cattle setting up red dysentery, due to the same coccidium (the *coccidium zurni*). [Mr. Buxton here remarked that about four years ago they were said to be the same.] There had, Prof. Wooldridge said, been described certain differences between these coccidia which may have justified a separation. Subsequent investigations may, however, have proved their identity. The disease was a matter of great interest to the speaker, and he would conclude by again thanking Mr. Buxton for bringing up the question.

#### REPLY.

Mr. J. B. BUXTON said: He very much appreciated Mr. Gray's remarks, in particular his jocular reference apropos of wild rabbits—that he had discovered that all the wild rabbits he had shot were infected with coccidiosis, for which reason he has assumed that they had been unable to get away as quickly as the others. Mr. Buxton would contend that all the rabbits in the wood were infected, and the survival of some of them was a question of selection; these were probably those in which the disease was chronic. It was frequently found that practically every rabbit coming from a particular area would on examination show the spots to which he had referred in his paper. It was the intestinal form which was more fatal. With regard to dysentery in rabbits, he had found hemorrhagic faeces to be very uncommon, and Mr. Thompson would bear out that statement. The speaker had rather hoped that Mr. Thompson would have referred to a similar pathological picture in the guinea-pig to that which was seen in the rabbit. In these cases however there was enteritis, and the small nodules were found in the liver and sometimes in the spleen, the disease was produced

by *B. enteritidis gartneri*. So far as the speaker knew, the guinea-pig was not very prone to coccidiosis, at any rate, during recent years, when dealing with outbreaks of coccidiosis among rabbits, he had found that guinea-pigs in close contact with the rabbits, and feeding on the same floor, did not show any trace of coccidiosis when killed and examined, not even in scrapings from the intestines. [Mr. Thompson here observed that probably his cases had been true enteritis, but the cases were not very definite; there was one case out of each of three pens, all the others being all right.] Mr. Buxton appreciated Mr. McIntosh's remarks, although he had not considered the case of coccidiosis in the sheep. Prof. Wooldridge had, apparently, found enteritis, but not hemorrhagic enteritis, but the interesting point that there was frequently no diarrhoea in the intestinal form of the disease was outside the speaker's experience. He had not studied the matter closely.

With respect to the feeding of infected animals, he would put the case that adjacent to the affected rabbits there might be a shed containing, say, a sack or two of meal. While he would not suggest that the meal should be given to healthy stock, he would be very loath to burn it. Again, the contamination might be only slight, so that there was justification in running a small risk if the intention was to feed the stuff to animals already infected. He could not endorse Prof. Wooldridge's view that the adult rabbit possessed great resistance to the disease. The fact that an adult rabbit showed hepatic lesions of a chronic nature merely indicated that it had been lucky enough to get through, having had a little more resistance than others, in the earlier stages of the malady. He had found, experimenting with a colony of rabbits infected with the disease, that adult rabbits would die off rapidly if infected. He concurred with Prof. Wooldridge's views as to the use of sulphate of iron; personally, he administered it immediately he perceived any symptoms of coccidiosis in a rabbitry. He would incidentally observe that he had little experience of outside conditions; he had worked within the limitations of a laboratory.

As to blackhead in turkeys, the experiments carried out in this relation were reported in the Report of the Maine Agricultural Experimental Station, in America. He would gladly submit the data to Prof. Wooldridge.

With regard to coccidiosis in cattle, several years ago there was a tendency to think that *C. perforans* was responsible for the intestinal coccidiosis of rabbits and also for the bovine disease. The chief difference between this parasite and *C. oviforme* was that in the division of the protoplasm to form the four sporozoites a portion remained, forming the "residual corpuscle." This however does not appear to be sufficiently constant to warrant such a distinction being made.

The PRESIDENT made a brief reference to the satisfaction manifested at the return of Major Hobday, and expressed the hope that the Society would in the near future benefit by some communication from the major in connection with his experiences during his peregrinations in Europe.

#### RESUMPTION OF MEETINGS.

Prof. WOOLDRIDGE next observed that since hostilities had ceased, with little probability of being resumed the meeting should decide whether the ordinary meetings should be bi-monthly or monthly. Personally he had no strong views; but it would be well if fellows would give expression to their opinions. Owing to the stress of things, attendances had become small, and bi-monthly meetings had been adopted. Notwithstanding that conditions were not likely to be easier for some time, there was a feeling of relaxation, and the fellows might think they could afford the time for monthly meetings. The decision to hold bi-monthly meetings had been

thrashed out, he believed, without any previous notice being given, and perhaps the same course might now be taken with regard to the adoption, or otherwise, of the monthly meetings.

The discussion at this point became informal, the following gentlemen expressing their opinions briefly. Mr. Buxton suggested that the bi-monthly meetings should continue until the return of Fellows now out of England. Mr. Davis did not think there should be a meeting in the early days of January, but meetings might be held in February, March, and April. He also raised the question of a dinner. Mr. McIntosh felt that the Society should resume the monthly meetings at as early a date as possible. Many important matters concerning the profession needed consideration, and monthly meetings would largely assist in arranging such matters. With the improbability of the war breaking out again, he thought the profession should be active and watchful. He would suggest that monthly meetings should be resumed with the beginning of the new year. Mr. MacCormack agreed with the last speaker, but the beginning of January is too early, in view of the difficulty of getting papers. The present meeting was a good one, but only three or four of the Fellows were not constant attendants. The others had been turning up month after month during the war, and much honour was due to them for so doing. He thought the monthly meetings should be resumed when peace was declared, when from all parts of the Dominions the men would have returned from active service. The President, referring to Mr. Davis' suggestion for a dinner, recalled that Mr. Almond had suggested at an earlier meeting that a dinner would not be out of place, and since it was necessary to eat there could be no objection to adding social intercourse. Perhaps the adoption of a double principle would commend itself, namely, commencing with a dinner to set the ball rolling again, and proceeding subsequently with monthly meetings.

Further discussion ensuing, some members were in favour of the earliest possible date, others thought February next a suitable date. Finally, Mr. Almond proposed that the Fellows should have a dinner in February, 1919, and that the monthly meetings should afterwards be resumed. Mr. Davis seconded the proposal, which was carried by a large majority. The general arrangements and the question whether ladies should be invited to the dinner were left to the Dinner Committee.

The SECRETARY proposed that the Dinner Committee should consist of the President, the Treasurer, Mr. McIntosh, Mr. Jack Willett, and himself.

The proposal having been duly seconded and put to the meeting was unanimously carried.

A general discussion followed regarding the position of veterinary students serving in the army, and the desirability of urging their early release.

Mr. MCINTOSH pointed out that the Royal College of Veterinary Surgeons already had the matter under consideration.

The PRESIDENT believed that the teaching colleges and also the Council of the Royal College were, in fact, pushing the matter with all vigour, but no harm could result from submitting a resolution to the Royal College if they thought it worth while.

Mr. SHEATHER proposed, Mr. Buxton seconded, and Mr. Almond supported the following resolution, which was carried unanimously:—

"That the Central Veterinary Society intimates to the Royal College of Veterinary Surgeons that it wishes to support and press the application that is being made for the release of students on active service, in order that they may resume their studies at the earliest possible date."

The proceedings terminated with the passing of a vote

of thanks to Mr. J. B. Buxton for the paper he had read. Mr. Gray, who supported the vote, remarked that he hoped Mr. Buxton would, on some future occasion, present the Society with a paper on Coccidiosis in Poultry, of which there was less known than in the case of rabbits.

HUGH A. MACCORMACK, Hon. Sec.

### THE ROYAL COUNTIES V.M.A. AND THE COUNCIL R.C.V.S.

To the Editor of "The Veterinary Record."

Sir,—At the discussion on the Council by the Royal Counties V.M.A., the following views were expressed:—

1. New and vigorous blood and broadened minds are wanted on the Council. 2. Some members of Council only attend one or two meetings a year. 3. Some of the present members are head and shoulders above the others, and these few lead the remainder—which does not tend to efficiency. 4. When a member of Council objects that nothing much is done at a Committee meeting, or brings forward special matters for attention, he is put on such-and-such Committees to "shut his mouth." 5. The schools are over-represented, and rule the profession. 6. No interest of the Council in things nearest to the heart of the general practitioner. 7. The Council seemed to be divided into two camps—not recently, but formerly.

I am a newcomer on the Council, after years of residence abroad, so perhaps my views are less biased in consequence. Taking the above paragraphs by numbers, it seems to me that:—

1 and 2. New blood is undoubtedly wanted to replace those members who only attend one or two meetings a year, and also those who, when they do attend, never get up and say anything original, much less try to do anything, and finally grumble at everything that is done.

3. Some of the present members are head and shoulders above the others, and these few lead the remainder, but the loss of efficiency, if any, might reasonably be considered the fault of "the remainder."

4. A member is not put on a Committee to "shut his mouth," but to encourage him to do something.

5. There are 32 members of Council, of whom 5 only are connected with the schools. This is hardly over-representation. An Examination Committee composed of members of Council with no school representative on it would have a stiff time, say, in revising our curriculum, a matter which must shortly be taken up.

6. The remedy is to get new members, general practitioners or otherwise, who will take the place of the many inert members now on the Council.

The Associations, for the coming elections, are quite entitled to put forward capable men as their official candidates, and vote for them, and when they get in give them a programme to carry through.

Such would be a constitutional method, but long-range "sniping" of the above description will not make for the good of the profession.

Let us have unity and progress.—Yours, etc.

S. H. GAIGER, F.R.C.V.S.

The report of the Royal Counties V.M.A. in your last issue of *The Veterinary Record* must be of very great interest to the profession at the present time, as a very fair criticism was given of the present Council of the Royal College of Veterinary Surgeons.

The President of the Royal Counties V.M.A. said: "New blood was necessary, that men who had gone out and done their bit, who have seen things and had their

minds broadened, are the men we want on the Council if we are to have vigorous treatment in the profession." "Eight retire each year and are usually nominated by their noble selves."

Now with the above remarks I agree in their entirety, for the simple and obvious reason that if one judges a body by the results they have achieved the most of the present members on the Council of the R.C.V.S. might with advantage to the profession retire of their own accord, and make room for younger and more energetic men who are so badly needed.

Preferential treatment in electing new blood ought to be accorded to men who have served their country; but intermingle with them a few energetic practitioners who know the needs of the profession, and who have only the interests of their profession at heart.

Hitherto the profession has been run by the schools, and with what results? Take, for instance, the position of practitioners under the Military Service Acts, and compare them with the medical or dental professions. The former always had its own tribunal, the latter obtained its tribunal long before we did, and we would never have had a Veterinary Tribunal if it had not been for the energies of one man on the Council, and he is not a representative of the schools; but he recognised the necessity of equivalent treatment being given to all members of the profession, because he was practical in his views—as distinct from the ultra scientist who may be a good man in delivering lectures, but totally incapable of guiding the destinies of the clinician.

As a further example of the administrative capabilities of the ultra scientist take the recent examinations, published in *The Veterinary Record*, Dec. 28, 1918. We find:

5 men	got qualified in	London.
2 "	"	" Liverpool.
1 man	"	" Glasgow.
4 men	"	" Dublin.

Total 12 men; yet I understand that Examiners have had to travel to these places of decentralisation. Why? The only answer I can give is, The schools decide these things, and obviously do so for their own convenience, instead of studying the funds of the R.C.V.S., which we all know are sadly depleted. If all the students had been centralised for the examinations in December last just think what the R.C.V.S. would save in expenses.

The election of the Council has been conducted year after year on the same old lines. Men whose names have been a household word in the profession have been put up and, in the ordinary course, elected; once there, they appear to get grooved with their brethren, and the next thing they are taught to do, is to become subservient in the execution of their ideas to older members.

The remarks made by Mr. Coleman, a member of the Council of the R.C.V.S., at the Royal Counties V.M.A.: "At the present time the majority of the Council followed the lead and supported about four men, whatever they said." Well, I have been of that opinion for some time, and it only convinces me of the weakness of these men, many of whom I know personally.

The time has now arrived when the profession must cast aside its lethargy, as many difficulties will arise in the future which will be overcome only by successful practical men: the ultra scientist has given us his best and convinced us that he has been a failure in running the profession, whose wants he obviously knows nothing about.

My experience of the profession is that most of the successful members have preferred to abstain from entering into its politics. Problematical as this may appear, it is capable of solution, a busy life and no time to spare is most probably the cause. Nevertheless it is highly regrettable, as these are men who are needed and who understand the wants of the practitioners, who after all comprise the greater part of the profession.



By all means let us have the Royal Army Veterinary Corps and the Board of Agriculture represented on the Council, and, say, two schools, whose representatives ought to retire annually to allow two members from other schools to be elected. Under these circumstances the schools would be adequately represented and we might possibly obtain a chance of seeing the profession running a successful course, more especially if young, energetic, and enthusiastic men were prevailed upon to stand for election, to complete the remaining numbers of members on the Council.

We have had far too much legal administration from the present body, who apparently seem totally ignorant of the things nearest the heart of the general practitioner, in fact I will go further, and say that the present Council seem to have no interest in the profession whatever except in the administration mentioned.

A lead is undoubtedly necessary from the council in interesting themselves in matters which appeal to the profession, then, and not until then, shall we obtain the enthusiastic support of the men best fitted for the council, namely the successful practitioners, as we have already had enough proof to convince us that the ultra scientist is a failure in this respect.

I therefore appeal to all members when voting to support only practitioners who have no axes to grind, and whose interests are entirely professional; and to eliminate from your minds, once and for all, those who study personalities prior to professional interests. If you carry this in your mind when the next election takes place, and remember it at future elections, we shall, I hope, have the proper representatives on the

council in the future, many of whom at the present time are, might I say almost "unknown" and "unseen."

Remembering the quotation.

"Full many a flower is born to blush unseen,  
And waste its sweetness on the desert air."

Yours faithfully, REFORM.

#### BOARD OF AGRICULTURE AND FISHERIES

Replies to The Secretary. WHITEHALL PLACE,

Quote No.—A. 3163/1917.

LONDON, S.W. 1.

Telegraphic Address—

30th Dec., 1918.

Agrif. Westrand-London.

Sir,—In view of the probability of some dogs being smuggled into this country during the period of Demobilisation of the various Expeditionary Forces with a consequent risk of the spread of rabies, I am directed by the President of the Board of Agriculture and Fisheries to ask your assistance in suggesting to veterinary practitioners the desirability of bearing this in mind in the course of their practices.

The Board are receiving so large a number of applications for licences to land dogs that available accommodation for quarantining dogs will in the near future be insufficient; any veterinary practitioner in the position to quarantine one or more dogs might therefore communicate with the Board.—I am, Sir,

Your obedient Servant,

W. H. CHAMBERLAIN,

for Secretary.

The Editor "Veterinary Record."

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confrmd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	Dogs	Other Anmls											
Gr. BRITAIN.													
Week ended Dec. 21	2	1	6	7			1	112	226	10	26	6	
Corresponding week in	1917		10	11			2	91	175	21	22	1	
	1916		15	20		1	1	42	91	27	75	36	
	1915		10	10				40	105	22	61	225	
Total for 51 weeks, 1918	92	6	240	277	3	14	33	97	4363	8149	346	1383	550
Corresponding period in	1917		417	474			25	56	2507	4663	521	2081	965
	1916		538	642	1	24	46	117	2063	4534	345	4239	9119
	1915		566	632	56	702	49	85	†879	†1903	238	3913	16454

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Dec. 24, 1918

† Counties affected, animals attacked:—Suffolk 1

Excluding outbreaks in army horses.

IRELAND.	Week ended Dec. 21	...	...	...	...	...	...	Outbreaks	10	3	1	
		...	...	...	...	...	...	...	15	1	5	
Corresponding Week in	{	1917 ...	...	...	...	...	...	...	28	5	30	
		1916 ...	...	...	...	...	...	...	11	1	2	
		1915 ...	...	...	...	...	...	...	...	...	...	
Total for 51 weeks, 1918		...	2	2	...	...	...	96	334	32	130	
Corresponding period in	{	1917 ...	3	5	...	...	1	1	45	422	198	1132
		1916 ...	3	7	...	...	...	...	61	482	309	1847
		1915 ...	2	2	...	...	1	3	70	409	244	1351

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Dec. 21, 1918

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

## ARMY VETERINARY SERVICE

War Office, Dec. 30.

The following is a continuation of Sir D. Haig's Dispatch of the 8th November, 1918, submitting names deserving of special mention:—

Maj. and Bt. Lt.-Col. (actg. Lt.-Col.) J. J. Aitken, D.S.O.; Capt. D. Blyth (S.R.), attd. 8th D.A.C., R.F.A.; Temp. Capt. F. L. Clunes, Comdg. 18th Vet. Evac. Stn.; Temp. Qrmr. and Capt. C. Cooke, 9th Vet. Hosp.; Hon. Lt. (temp. Maj.) H. A. Crowe; Temp. Capt. L. A. Donovan; Temp. Capt. J. Dunn; Temp. Capt. A. Gofton, F.R.C.V.S., 19th Vet. Hosp.; Capt. D. C. Greene; Temp. Capt. R. W. Hadfield, 33rd Mob. Vet. Sec.; Temp. Capt. J. E. Hanna, M.C.; Temp. Capt. R. L. L. Hart (E. Afr. Vet. Corps.); Temp. Capt. J. Hill, attd. 38th Army Bde., R.F.A.; Temp. Capt. S. Hirst, attd. 117th Bde., R.F.A.; Capt. P. Howard (S.R.), Comdg. 15th Vet. Evac. Stn.; Temp. Capt. C. A. Hutton, 1st Vet. Evac. Stn.; Capt. J. J. G. Keppel (S.R.), attd. 29th Mob. Vet. Sec.; Temp. Capt. J. MacFarlane, 49th Mob. Vet. Sec.; Temp. Capt. C. O. Machonachie, M.C.; Temp. Capt. H. E. McGee, Comdg. 23rd Mob. Vet. Sec.; Temp. Capt. B. A. McGuire; Temp. Capt. H. V. M. Metivier, 40th Mob. Vet. Sec.; Temp. Capt. J. C. Miller; Temp. Capt. H. K. Roberts; Capt. C. J. C. Ryan, 13th Mob. Vet. Sec.; T. Capt. A. R. Smythe, 31st Mob. Vet. Sec.; Capt. P. S. Thierry, attd. 317th Bde. R.F.A. (T.F.); Capt. P. J. Turner, attd. 5th D.A.C., R.F.A.; Temp. Capt. J. B. Walker; Temp. Capt. J. H. Yates, 28th Mob. Vet. Sec.

R.A.V.C. (T.F.)

Capt. R. Bickerton, 2/1st N. Mid. Mob. Vet. Sec.; Capt. A. C. Burton, 14th Vet. Hosp.; Capt. D. R. Crabb, 2/1st W. Rid. Mob. Vet. Sec.; Capt. (actg. Lt.-Col.) H. C. Jagger; Capt. E. E. C. MacLachlan, 1/1st Low Mob. Vet. Sec.; Capt. J. Martin; Capt. (actg. Lt.-Col.) J. McArthur, 14th Vet. Hosp.; Capt. F. J. Richmond.

CANADIAN A.V.C.

Capt. N. Beaver, attd. 8th Can. Inf. Bde.; Capt. (actg. Maj.) S. C. Richards, Can. Vet. Hosp.; Capt. W. A. Robertson, attd. 12th Can. Inf. Bde.; Vet. Sgt. W. Kennedy, 320865.

AUSTRALIAN A.V.C.

Maj. T. H. Hankin; Capt. J. Legg, 3rd Mob. Vet. Sec.; Capt. W. S. T. Morgan, attd. 4th Aust. Div. Train.

## THE ORDER OF ST. MICHAEL AND ST. GEORGE.

The King has been pleased to give directions for the following promotions in, and appointments to, the Most Distinguished Order of Saint Michael and Saint George, for services rendered in connexion with military operations in France and Flanders. Dated January 1, 1919:—

C.M.G.

Maj.-Gen. J. Moore, C.B., F.R.C.V.S.

## ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following promotions in, and appointments to, the Most Excellent Order of the British Empire, for valuable services rendered in connexion with military operations in France and Flanders:—

O.B.E. (Military Division).

Capt. (actg. Maj.) W. Ascott (T.F.); Capt. (actg. Maj.) J. S. Bowden (T.F.); Temp. Lt. (temp. Maj.) H. A. Crowe; Maj. P. W. Dayer-Smith (T.F.); Capt. (actg.

Maj.) R. A. Gooderidge; Temp. Capt. J. Hill; Capt. (actg. Maj.) S. E. Holmes (S.R.); Capt. (actg. Lt.-Col.) H. C. Jagger (T.F.); Capt. (actg. Lt.-Col.) J. McArthur (T.F.); Temp. Capt. B. A. McGuire; Maj. (temp. Lt.-Col.) A. W. Mason, (retd. T.F.); Maj. W. W. R. Neale; Temp. Maj. (actg. Lt.-Col.) E. W. Parks (T.F.); Temp. Capt. J. B. Walker.

CANADIAN A.V.C.

Capt. (actg. Maj.) S. C. Richards; Capt. W. Robertson.

AUSTRALIAN A.V.C.

Maj. R. M. Hore.

## PROMOTIONS AND OTHER REWARDS.

War Office, Jan. 1.

The King has been pleased to approve of the following rewards for distinguished service in connexion with military operations in France and Flanders. Dated Jan. 1, 1919:—

TO BE BREVET MAJOR.

Capt. (actg. Maj.) F. B. Sneyd (S.R.); Capt. (temp. Maj.) W. H. Taylor.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Dec. 30.

## TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Maj. R. C. Thompson (late Maj., Yorks Dgns) reverts to ret. list, on attaining age limit (Dec. 31).

Capt. G. E. Henson to be actg. Maj. while empld. as D.A.D.V.S. (Oct. 4).

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1918:—

W. F. Barrett, Brockley, S.E.	£1	1	0
R. J. Hickes, Market Weighton	1	1	0
P. J. L. Kelland, Bd. of Agriculture	1	1	0
M. Twomey, Macroom, Co. Cork	1	1	0
Previously acknowledged	1124	6	11
	£1128	10	11

## Prosecution under the V. S. Act.

Henry John Smith (50), ostler, Llanhilleth, was summoned at the local court on Tuesday 31st ult. for unlawfully describing himself as a veterinary surgeon.

The evidence for the prosecution was that the defendant, at the request of several people in the district, examined a number of pigs, and said they were suffering from influenza. He prescribed for them and was paid for it. He supplied powders around which he had used labels on which was printed "Smith, veterinary surgeon, Usk." The labels it transpired, belonged to his late father, who had resided in Usk.

Defendant said he had worked at a colliery for four years, and had never made himself out to be a vet. He had told people he was not a qualified man.

The Chairman (Dr. E. Ryan) said the magistrates thought he had been sailing very near the wind, but there was no proof that he had made himself out to be a veterinary surgeon. The case, therefore, would be dismissed.—*South Wales Echo*.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Dec. 28	6		5	5			1	1	100	228	5	24	12
Corresponding week in	{	1917	4	6				7	107	210	22	23	5
		1916	13	21					41	80	36	49	26
		1915	9	2					54	92	19	81	248
Total for 52 weeks, 1918	98	6	245	282	3	14	34	98	4463	8377	351	1407	562
Corresponding period in	{	1917	421	480			25	63	2614	4873	543	2104	970
		1916	551	663	1	24	46	117	2104	4614	381	4288	9145
		1915	575	641	56	702	49	85	†933	†1995	257	3994	16702

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
 (a) Confirmed. (b) Reported by Local Authorities  
 ‡ Counties affected, animals attacked:—Essex 1  
 Board of Agriculture and Fisheries, Dec. 31, 1918 Excluding outbreaks in army horses.

IRELAND.	Week ended Dec. 28	...	...	...	...	...	...	Outbreaks	2	18	4	8
Corresponding Week in	{	1917	...	...	...	...	...	...	8	...	10	
		1916	...	...	...	...	...	...	24	8	39	
		1915	...	...	...	...	...	...	1	3	10	
Total for 52 weeks, 1918	...	2	2	...	...	...	...	98	352	36	138	
Corresponding period in	{	1917	3	5	...	...	1	1	45	430	198	1142
		1916	3	7	...	...	...	...	61	506	317	1886
		1915	2	2	...	...	1	3	71	412	247	1361

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Dec. 31, 1918  
 Note.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

## OBITUARY.

HERBERT SPRINGETT, M.R.C.V.S., Sydendam, S.E. 26.  
 Graduated, Lond: May, 1863.

Mr. Springett died Dec. 28th, 1918.

## Personal.

TOWNSON.—On 29th Oct., 1918, at Darwin Harbour, Falkland Islands, the wife of Vet.-Lieut. H. W. Townson—a son.

Mr. F. E. PLACE, M.R.C.V.S., Government Veterinary Lecturer, Adelaide, S. Australia, met with a serious accident at the Roseworthy Station recently. He was alighting from a trap when a passing motor cycle startled the horses, which moved forward and caused him to fall heavily on the ground. So soon as possible Mr. Place was conveyed to Adelaide, and taken to the Kent Town Private Hospital. An X-ray examination revealed that he had broken a hip in two places. In the circumstances some months will probably elapse before he can resume his duties, a fact which, together with his unfortunate mishap, will be keenly regretted by the farming community. The greater part of his time during the last few years has been devoted to lecturing and demonstrating before members of the many branches of the Agricultural Bureau, by whom he is held in the highest esteem, and acknowledged to be one of the most popular and practical lecturers ever associated with the Department of Agriculture.

[The date of the accident does not appear, as only a fragment of the newspaper reached us; but the envelope bears post mark Adelaide, Nov. 21.]

## Veterinary Societies—Addresses.

## BORDER COUNTIES V.M.S.

Pres: Mr. H. Barrow, M.R.C.V.S., Ireby, Carlisle  
 Hon. Sec: Mr. R. Craig Robinson, M.R.C.V.S., Carlisle  
 Meetings, Second Friday of Feb., June, and October

## GLASGOW V.M.S.

Hon. Sec. Mr. John S. Keane, 11 Falkland Mansions, Kelvinside

## ROYAL VETERINARY COLLEGE V.M.A.

Pres. Capt. J. T. Edwards, B.Sc., M.R.C.V.S.  
 Treas: E. S. Shave, Esq., F.R.C.V.S., M.R.C.S.  
 Sec: Mr. B. Gorton, M.R.C.V.S. Asst. Sec. C. W. Heane.

## NATIONAL ASSOCIATION OF VETERINARY INSPECTORS

Pres: Major J. Abson, F.R.C.V.S., Sheffield  
 Hon. Sec: Mr. Trevor Spencer, M.R.C.V.S., Kettering

## ASSOCIATION OF VETERINARY OFFICERS OF HEALTH

Pres: Mr. T. Douglas, M.R.C.V.S., Kilmarnock  
 Hon. Sec. & Treas. Mr. A. M. Trotter, M.R.C.V.S.,  
 Moore Street, Abattoir, Glasgow

## MUNSTER VETERINARY INSPECTORS' ASSOCIATION

Pres: Mr. D. M. Barry, M.R.C.V.S., Mallow  
 Hon. Sec: Mr. J. F. Mahony, M.R.C.V.S., Caroline St., Cork

## NATIONAL VETERINARY BENEVOLENT &amp; MUTUAL DEFENCE SOCIETY.

Pres: Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester  
 Hon. Sec: & Treas: Mr. G. H. Locke, M.R.C.V.S.  
 Grosvenor Street, Oxford-st., Manchester

## VICTORIA VETERINARY BENEVOLENT FUND.

Pres. Mr. S. H. Slocock, F.R.C.V.S., Montague Rd, Hounslow  
 Hon. Secs. Mr. P. J. Kelland, M.R.C.V.S.  
 Mr. Fred Bullock, F.C.I.S.  
 10 Red Lion Square, London, W.C. 1.

Will Secretaries please intimate alterations.

**Royal College of Veterinary Surgeons.***President:* Mr. Frank W. Garnett, M.R.C.V.S., J.P.*Vice-Presidents:* Mr. J. McI. McCall, M.B., C.M., M.R.C.V.S.  
J. McKinna, F.R.C.V.S.*Secretary and Registrar:* Mr. Fred Bullock,  
10 Red Lion Square, London, W.C. 1.**NATIONAL VETERINARY ASSOCIATION***President:* Dr. O. Charnock Bradley, Prin. R.V. Coll., Edin.  
*Sec:* Mr. J. W. Brittlebank, M.R.C.V.S. (on Service),  
Town Hall, Manchester*Assist. Sec:* Mr. W. L. Harrison, F.R.C.V.S. (on Service),  
11 Anchor Terrace, Southwark Bridge, S.E.*Treas:* Prof. G. H. Wooldridge, F.R.C.V.S. (Acting Hon. Sec),  
Ryl. Vet. Coll., Camden Town N.W.**Northern Branch:***Pres.* Mr. W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* Mr. A. W. Noël Pillers, (F)  
71 Smithdown Lane, Liverpool**LANCASHIRE V.M.A.***Pres:* Mr. G. H. Locke, M.R.C.V.S.,  
Grosvenor-street, Manchester*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
Town Hall, Manchester*Hon. Treas:* Mr. B. H. Stent, M.R.C.V.S., Preston-st, Hulme  
*Meetings,* 1st Thursday in April, June, Sept., & Dec.**LIVERPOOL UNIVERSITY V.M.S.***Pres:* Mr. J. P. Heyes, F.R.C.V.S., Wigan  
*Hon. Sec:* Mr. A. Walker, F.R.C.V.S., Mill Lane, West Derby*Pathological Sec:* Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings,* May, July, October, January.**MIDLAND COUNTIES V.M.A.***Pres:* Mr. J. Malcolm, F.R.C.V.S., Birmingham  
*Hon. Sec:* Mr. H. J. Dawes, F.R.C.V.S.,  
Camden House, High-st., West Bromwich*Hon. Treas.* Mr. J. J. Burchall, M.R.C.V.S., Barrow-on-Soar  
*Meetings,* Second Tuesday, Wednesday, Thursday, and  
Friday alternately in Feb., May, Aug. and Nov.**NORTH OF ENGLAND V.M.A.***Pres:*  
*Hon. Sec:* T. T. Jack, M.R.C.V.S., 3 Elmwood-st, Sunderland  
*Meetings,* Third Friday, Feb., May, Aug. and Nov.**NORTH MIDLAND VETERINARY ASSOCIATION***Pres:* Mr. W. Collinson, M.R.C.V.S., Auston, Sheffield  
*Hon. Sec:* Mr. J. S. Lloyd, F.R.C.V.S., Sheffield**NORTH WALES V.M.A.***Pres:* Mr. Hugh Williams, M.R.C.V.S., Ty Croes  
*Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings,* First Tuesday, March and September**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.***Pres:* Mr. J. M. Walker, F.R.C.V.S., Hartlepool  
*Hon. Sec. & Treas:* Mr. F. H. Sanderson, M.R.C.V.S.,  
Victoria Road, Darlington  
*Meetings,* First Friday, Mar., June, Sept. and Dec.**YORKSHIRE VET. ASSOCIATION***Pres.* Mr. S. E. Sampson, M.R.C.V.S., Hillsboro', Sheffield  
*Hon. Sec:* Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas:* Mr. A. McCarmick, M.R.C.V.S.,  
Kirkstall-road, Leeds**Southern Branch:***Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.***CENTRAL V.S.***Pres.* Prof. G. H. Wooldridge, M.R.C.V.S., R.V. Coll, London  
*Hon. Sec:* Mr. H. A. MacCormack, M.R.C.V.S.,  
122 St. George's Avenue, Tufnell Park, N.*Meetings (pro tem.),* First Thursday in October and alter-  
nate months, except August,  
10 Red Lion Square, Holborn, at 7 p.m.**EASTERN COUNTIES V.M.A.***Pres.* Mr. T. E. Barcham, M.R.C.V.S., Paston, Norfolk  
*Hon. Sec. & Treas:* Mr. A. C. Holl, M.R.C.V.S., New Buckenham  
*Meetings,* Second Tuesday, Feb., July and Sept.**LINCOLNSHIRE AND DISTRICT V.M.S.***Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
Long Stanton, Cambridge  
*Hon. Sec. & Treas:* Mr. Tom Hicks, M.R.C.V.S.,  
Boston Road, Sleaford  
*Meetings,* Second Thursday Feb., June, and October**ROYAL COUNTIES V.M.A.***Pres:* Mr. G. P. Male, M.R.C.V.S., Friar Street, Reading  
*Hon. Sec.* Mr. J. C. Coleman, M.R.C.V.S., Swindon  
*Hon. Treas:* Mr. J. Willett, M.R.C.V.S., 6 Harley Place, W. 1  
*Meetings,* Last Friday, Jan., April, July and Nov.**SOUTHERN COUNTIES V.S.***Pres:* Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec:* Mr. J. T. Angwin, M.R.C.V.S., Arundel (on Service)  
*Hon. Treas:* Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings,* Last Thursday, Mar., June and Sept.**SOUTH EASTERN V.A.***Pres.* Mr. E. Lyne Dixon, M.R.C.V.S., Margate  
*Hon. Sec. & Treas.* Mr. H. P. Hogben, M.R.C.V.S.,  
3 Manor Road, Folkestone**WESTERN COUNTIES V.M.A.***Pres:* Mr. W. Roach, F.R.C.V.S., York Rd., Exeter  
*Hon. Sec.* Mr. W. Ascott, M.R.C.V.S., (on Service)  
Mr. C. E. Tucker, 7 Greville St., Bideford (pro tem.)  
*Hon. Treas:* Mr. P. G. Bond, M.R.C.V.S., Plymouth  
*Meetings,* Third Thursday, March, July and November**Irish Branch:***Pres.* Mr. A. Watson, Municipal Buildings, Dublin  
*Sec.* Mr. P. D. Reavy, Leafeld, Bundoran, Co. Donegal  
**CENTRAL V.A. OF IRELAND.***Pres:*  
*Hon. Sec.* Mr. E. C. Winter, F.R.C.V.S., Queen-st., Limerick  
*Treas:* Mr. J. F. Healy, M.R.C.V.S., Midleton**CONNAUGHT V.M.A.***Pres.* Mr. D. Hamilton, M.R.C.V.S., Ballina  
*Hon. Sec. & Treas.* Mr. A. J. Moffett, M.R.C.V.S., Galway**VET. MED. ASSN. OF IRELAND.***Pres:* Prof. J. J. O'Connor, M.R.C.V.S., R.V. Coll., Dublin  
*Hon. Sec:* Prof. J. J. O'Connor.  
*Hon. Treas:* Prof. J. F. Craig, M.A., M.R.C.V.S.,  
R.V. Coll., Dublin**NORTH OF IRELAND V.M.A.***Pres:* Mr. J. Ewing Johnston, M.R.C.V.S., Belfast  
*Hon. Sec:* Mr. P. Walsh, M.R.C.V.S., Magherafelt  
*Hon. Treas:* Mr. Howard McConnell, M.R.C.V.S., Armagh**THE VETERINARY OFFICERS ASSOCIATION FOR IRELAND.***Pres:* Mr. F. W. Emery, F.R.C.V.S., Dublin  
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Ryl. (Dick) Vet. Coll: Edinburgh  
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(on Service)**NORTH OF SCOTLAND V.M.S.***Pres:* Mr. W. Brown, M.R.C.V.S., Marischal Coll: Aberdeen  
*Hon. Sec. & Treas:* Mr. G. Howie, M.R.C.V.S. Alford, Aberdeen  
*Meetings,* Last Saturday in January and August**ROYAL SCOTTISH V.S.***Pres:* Mr. Reid, M.R.C.V.S., Auchtermuchty.**SCOTTISH METROPOLITAN V.M.S.***Pres:* Mr. J. Riddoch, M.R.C.V.S., Edinburgh  
*Hon. Sec. & Treas:* Mr. Jas. Henderson, M.R.C.V.S.,  
Public Health Dept., City Chambers, Edinburgh**WEST OF SCOTLAND V.M.A.***Pres:* Prof. John R. McCall, M.R.C.V.S., Vety. Coll. Glasgow  
(on Service).  
*Hon. Sec:* Mr. J. F. Macintyre, M.R.C.V.S.,  
19 Bank Street, Hillhead, Glasgow  
*Hon. Treas:* Mr. Geo. W. Weir, M.R.C.V.S.,  
88 Crookston Street, Glasgow  
*Meetings,* Second Wednesday, May, Oct. and January

# THE VETERINARY RECORD

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## SCHEDULED DISEASE IN 1918.

With the report of December 28th, the Board of Agriculture completed its returns of scheduled disease for 1918; and we can review a year's work which, despite all difficulties, has been largely successful and highly creditable.

Three diseases show considerable decline. Anthrax has 245 outbreaks against 421 in 1917, swine fever 1407 against 2104, and sheep scab 351 against 543. The improvement in sheep scab becomes more marked from the fact that 244 of the 351 outbreaks occurred in the first six months of the year. We seem to have done so well against these three diseases as we could even have hoped.

Only three outbreaks of foot-and-mouth disease, involving 14 animals, occurred during the year; and all were close together. The first was late in September, the other two in October. It seems that these occasional visitations cannot be avoided at present; the great point is that we are able to subdue each as it comes. We are doing as well against this disease as could reasonably be expected.

Other diseases show the inevitable results of war conditions. By far the most serious position is with regard to rabies. Over a hundred cases have occurred since the beginning of September, and fresh ones are still being reported every week. So far, the disease has been successfully confined within the area in which it first appeared; and there is no doubt that the Board will be able to deal with the existing amount of it in time, if only fresh importations can be prevented all over the country. We all know how it originated, and recognise the only means of avoiding further heavy infection of the kingdom. The most pressing need just now is to teach the public the danger of importing dogs, which the Board of Agriculture is trying hard to do; and many veterinary surgeons are in a position to give valuable help in this direction.

Glenders, for the first time for many years, has increased a little; parasitic mange has increased a great deal. The cause in both cases is war conditions; and in both we may expect further increases next year.

This leads to the last and most important consideration. We are now commencing a time which will be more dangerous, so far as the spread of contagious disease is concerned, than the period of actual fighting. The danger will be materially increased by the chaotic conditions which now prevail over so large a part of Europe; and no one can say how long those will continue. But, even if order is restored upon the Continent much more quickly than at present seems likely, the dangers of importing disease will be greater than they ever were during the war. It is fortunate for us that the Board's veterinary staff is efficient and well led; for it will need all its resources, and all the assistance that the profession can give, in the time that lies ahead.

## OBSERVATIONS ON NEW RABBIT DISEASE AND ITS RELATION TO COCCIDIOSIS.

By E. R. SMYTHE, M.R.C.V.S., Falmouth.

Since utility rabbit keeping has become popularised in this country, attention has been drawn to the very high rate of mortality occurring among young rabbits. The subject has of late received a considerable amount of attention from veterinary surgeons and others, and the losses have been universally attributed to the effects of coccidia, present in the intestinal walls and the liver.

It is the intention of the writer to show in this article that coccidia alone are but rarely responsible for death, that these protozoan parasites are common to almost every rabbit, and that the actual cause of the disease is the presence of a specific organism in the blood or in various organs, being deposited therein by the blood-stream.

### THE PREVALENCE OF COCCIDIA AMONG RABBITS AND OTHER ANIMALS.

Seeing that coccidiosis has been blamed for the wholesale destruction of warrens and pedigree studs, it has been inferred that there existed rabbits which were free from coccidia as well as others infested by them. Moreover, it has been urged that an infested doe is incapable of rearing healthy youngsters, and that such an animal introduced into a warren would necessarily lead to disease and

mortality among the previously healthy stock. It has even been advised in the press that the faeces of all newly purchased animals should be examined microscopically, and that all does, even when apparently healthy, in which coccidia were demonstrable, should be rejected.

We have examined the faeces of probably hundreds of rabbits of all ages, kept under varying conditions of domestication or living wild in the natural state. Some of these tame rabbits were from so-called "infected" stock; others were apparently perfectly healthy. In no case have we failed to detect coccidia upon microscopical examination.

In some instances, the parasites were present in far greater numbers than in others, but their relative frequency had apparently no bearing upon the rate of mortality; in fact, we have frequently demonstrated the presence of enormous numbers of coccidia in "healthy" young rabbits from studs in which there was no mortality or history of such; whereas in warrens or hutches, where 95% of the young rabbits invariably died, frequently very few coccidia could be detected.

\*The earliest age at which we have found coccidia in the faeces is one week.

From our investigations we conclude that practically, if not absolutely, every rabbit harbours coccidia, and that they are natural parasites. Although they produce characteristic lesions in the intestine and liver, and sometimes in the respiratory tract, these are very rarely sufficiently grave to cause marked illness or death.

In all probability the same remarks regarding the presence of these parasites apply to the great majority of herbivorous animals. They can be detected in the faeces of nearly all, if not all, ruminants. In bovine faeces they are plentiful, and although they have been credited with causing dysentery in calves, it is more probable that they render the intestinal wall less resistant to the attack of other organisms.

Although we have made no investigation, it is also possible that "white diarrhoea" of chickens and young turkeys may be dependent upon similar causes, although in our experience coccidia can but seldom be detected in the faeces of healthy birds.

**Symptoms.** For the sake of clearness we will now briefly describe the symptoms occurring in young rabbits affected with the disease which has up to the present been confounded with coccidiosis. The disease may assume an acute, subacute, or chronic form. It may appear in rabbits a fortnight old, more frequently it develops at the age of five or six weeks, and but seldom after ten weeks.

The *acute form* is most common in rabbits during the first six weeks of their lives. As a rule one or more are found dead in the morning without having exhibited signs of previous illness. Death is in nearly all cases preceded by convulsions lasting from a few minutes to several hours.

*Subacute and chronic types.* Here the animals are lethargic, and sit huddled up, with the eyelids half closed, and exhibit a staring, "open" coat. The appetite diminishes and rapid emaciation sets

in. Diarrhoea may or may not be present; sometimes it is profuse and watery. In the majority of subacute cases death occurs suddenly after a convulsion. In those instances in which the chronic form appears, the abdomen enlarges whilst the loins waste, so that a characteristic "pot-bellied" appearance results. Recovery is very rare.

It is interesting to note that in certain districts where calves suffer from "coccidiosis," they frequently develop convulsions which precede death, and it is possible that the same causes may operate in these animals as in the rabbit.

**Post-mortem appearances.** *Acute form.* Usually *nil*. When coccidia are present in large numbers the characteristic liver lesions may be observed, but, in our experience, these may be met with in nearly all rabbits. Lesions due to invasion of the bile ducts by worm embryos are almost equally common.

Apart from lesions due to these causes, careful examination will usually detect one or more pale areas in the liver tissue. These will be discussed later. In addition, in a few cases one meets with a diphtheritic deposit upon the mucous membrane of the large intestine.

*Subacute cases.* The bowel, when washed and held to the light shows numerous pits or ulcers, filled with a gritty or cheesy substance. The appearance may be as though the bowel were sprinkled with fine sand.

*Chronic form.* The bowel wall, liver, and particularly the spleen, and in a few cases the pleura and peritoneum, show numerous nodules, somewhat resembling those of glanders.

**Etiology.** As stated before, we have formed the opinion that the mortality in young rabbits is *not* due to the presence of coccidia alone, but is brought about by a specific organism.

The bacillus, which is always in evidence in these cases, ranges from 2 to 5 *microns* in length and is about 1 to 5 *microns* in breadth, including its envelope, which is well-marked and comparatively thick. In appearance it somewhat resembles the anthrax bacillus. The ends are square-cut and it commonly occurs in pairs or in threes. It stains readily with methylene blue, but not by Gram's method. It is to be found in great numbers in the ulcers in the walls of the large intestine, and although innumerable organisms are present in the intestine, by washing the bowel and subsequently scraping the surface of an ulcer the bacilli are obtained in great numbers, almost free from adventitious bacteria. The diphtheritic membrane, when present on the surface of the intestine contains, besides coccidia, innumerable organisms of the type described.

During the convulsions which characterise the acute form of the disease, a condition of septicæmia may be demonstrated by microscopical examination of blood films. The bacilli are in some cases very plentiful but usually when viewed with a 1/12 in. oil immersion lens, from one to three may be observed to each field of the microscope. They may also be found in the substance of the spleen, but, are more plentiful in the one or more localised light-coloured patches, before mentioned as occur-



ing in the liver. The largest number of bacilli are to be found in the brain substance, when this organ has been removed directly after death. This applies only to those cases in which convulsions have occurred.

In the few instances in which by careful nursing, life has been prolonged for a few weeks, we have found that the nodules, before mentioned have developed throughout the abdominal organs. The lungs themselves do not appear to have become infected, although the pleura frequently shows evidence of it. The whole appearance has suggested either tuberculosis or glanders. The nodules however showed no true caseation, but were composed of a centre of creamy pus surrounded by an inspissated layer. The pus, upon microscopical examination, appeared to be a pure culture of the bacillus described.

The disease therefore appears to correspond with the pseudo-tuberculosis of rabbits described by Pfeiffer, but assumes an acute septicæmic type. It is apparently introduced into the system by means of infected foodstuff. Immunity appears to be acquired with adult age.

It appears probable that bacilli gain admission to the blood stream through the liver, which they reach via the bile ducts, possibly in company with coccidia; or that they enter the vessels or lymphatics through the intestinal walls. A very distended condition of these vessels associated with swelling of the neighbouring glands, occasionally met with on post-mortem examination, points to the lymphatic system as being the principal channel of infection. Coccidia may assist the bacteria to penetrate the bowel wall, but the typical ulceration present in many cases appears to be due to the action of the bacilli.

The actual cause of death in acute cases is in all probability embolism or hæmorrhage occurring in the brain or its membranes. The post-mortem appearances usually point to one of these conditions. Coccidia apparently have little effect on the health of rabbits unless they are present in sufficient numbers to almost totally destroy the functions of the liver. They seldom cause death, but may be responsible for a condition of chronic emaciation in adult or half-grown rabbits.

#### BREEDING AND FEEDING EXPERIMENTS.

To obtain further proof of the minor part which coccidia play in producing mortality in young rabbits, the writer conducted the following experiments. Ten does, each showing numerous coccidia in the faeces, were bred from. The does throughout, and the young when sufficiently advanced, were fed on bran and leaves of cabbage and other green stuff from one particular source. The average mortality among the young stock was 95 per cent. The cases were all of an acute type, death being preceded by convulsions, at ages varying from three to six weeks. A few of the same does and the surviving young does were removed to other premises and bred from. Coccidia were still as numerous in the faeces. The food now consisted of bran and grass or other hedge plants. Those does which

had formerly lost practically the whole of their youngsters, and the surviving young does bore litters which in their turn harboured coccidia, but the mortality from disease was now reduced to nil.

These experiments indicate that the disease is conveyed by infected greenstuff or that certain premises harbour the organism, which is apparently pathogenic only to young animals. It is also interesting to note that a definite period usually elapses in acute cases between ingestion of infected greenstuff and the occurrence of symptoms. Several rabbits of the same litter invariably developed convulsions on the same day, and in nearly every case on the third or fourth day after receiving the infected leaves.

#### PROPHYLAXIS.

The essential factor is the avoidance of leaves and fodder from certain infected sources. Hedge-plants are to be preferred to vegetable leaves. Cleanliness and the isolation or destruction of infected youngsters is imperative.

We have seen satisfactory results follow the daily administration of Sodium sulphocarbolate, dissolved in milk, grs. ii to each young rabbit.

#### TREATMENT.

Destruction is to be advised. Outbreaks of diarrhoea can be controlled by administration of Creosote  $\frac{1}{2}$  minim. for a rabbit of six weeks, combined with a little catechu.

Possibly, were the investigation carried further, an immunising serum might be prepared for use in valuable stock.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### POLYVALENT SERUM OF LECLAÏNCHE AND VALLÉE IN THE TREATMENT OF CANINE DISTEMPER.

Bresson gives an account of this in the *Revue générale de Médecine Vétérinaire* for 1917. His view of distemper is as follows. In veterinary pathology, distemper is perhaps the type of infections in which the secondary action of common microbial agents exceeds in gravity the primary action of the specific agents. The filtering virus of Carré, the causal agent of distemper, appears, when alone, to be easily tolerated by the animal. The clinical signs, the serious symptoms, and the mortal lesions observed in this disease are caused by the ordinary microbes of suppuration (Streptococci, staphylococci, etc.), which discharge their pathogenic rôle secondarily, by favour of the effects of the filtering virus. For this reason, leaving on one side all symptomatic treatment, the management of distemper is reduced to combating and preventing the secondary action of pyogenic microbes.

Starting upon this basis, and proceeding solely upon the principle of the great importance which secondary pyogenic infection possesses in distemper, the author, upon the advice of Leclainche and Vallée, has used the polyvalent serum prepared by these workers. All his distemper cases were treated systematically for five days with a daily subcutan-

ous injection of from 40 c.c. to 50 c.c. of polyvalent serum. Two dogs were treated with intravenous injections of 30 c.c. without any particular result. At the end of five days the dose was reduced to 15 c.c. every two days. The injections were made at different sites (neck, shoulder, flank), and without special antiseptic precautions.

In addition to the serum the author employed the following symptomatic treatment. Upon the entry of the dogs into the infirmary he gave an emetic of Syrup of ipecac. and followed this up with tonic injections of caffeine, a milky diet, rice water, powdered carbon, and alcohol.

From his experiences the author concludes that the polyvalent serum, used in massive doses from the time of the appearance of the first symptoms, has preserved the animals from pyogenic complications, and that, used upon animals bearing manifest secondary lesions, it combated the infection by the pyogenic agents causing these lesions, and enabled a large number of such animals to be saved.

W. R. C.

#### VESICULAR STOMATITIS IN CATTLE.

ADOLPH EICHORN.—*Amer. Jl. Vet. Med.*, 1917.

The United States Bureau of Animal Industry received rather alarming reports from Kansas and neighbouring parts that a disease existed among the livestock, particularly among cattle and horses, closely resembling foot-and-mouth disease. On arriving at the scene of the outbreak Eichhorn observed that the buccal lesions resembled those of foot-and-mouth disease so closely that a differentiation was almost impossible. In early cases typical vesicular formations with an accumulation of lymph were found. These vesicles ruptured readily, leaving a surface similar to that seen in foot-and-mouth disease. The lesions were not confined to any part of the mouth, the tongue was affected in about 50 per cent. of the cases, the dental pad was rather more frequently affected; the other parts of the buccal mucous membrane showed lesions varying in frequency. The regenerative process progressed very rapidly, the only difference from foot-and-mouth disease being that in some cases the eroded parts were covered with a thick gelatinous pseudo-membrane.

Inoculation tests.—Three calves were inoculated by scarification and five others, kept in another isolated pen, were inoculated intravenously with material from the lesions. The scarified calves developed lesions on the dental pad in 48 hours, but these were not quite typical in appearance. The calves inoculated intravenously remained unaffected. Interdigital inoculation of five pigs gave negative results. Likewise horses inoculated by rubbing infected material on the tongue showed no lesions on the third day and so the tongue was re-inoculated by scarification. "One of the horses on the third day developed a vesicle on the dorsum of the tongue and, as in the successful transmission to horses in Washington, on the following day an expansion of the disease was observed affecting almost the entire surface of the tongue."

The disease differed from foot-and-mouth disease in the following respects:—(1) the transmissibility of the disease to horses from cattle and the failure to infect pigs, (2) the absence of foot lesions in infected and exposed cattle, (3) the appearance of newly-formed vesicles after the commencement of the healing process in some cases, (4) the immunity of a large proportion (up to 60 per cent.) of exposed animals in some centres, and (5) the temperature was not observed to rise over 103° F.

#### A TREATMENT OF EPIZOOTIC LYMPHANGITIS.

BRINGARD, *Bull. Soc. Cent. Méd. Vét.*, 1917.

In this article the author describes a method of treatment adopted by him with successful results over thirty years ago in Algeria. His observations led him to conclude that the appropriate treatment consisted in the surgical extirpation of the swollen lymphatic vessel, or its destruction by means of some procedure acting directly on the interior of its lumen. The drugs employed failed to give satisfactory results. The removal of the lymphatics by means of a bistoury is attended with grave risks on account of the damage done to the surrounding tissues, and of secondary infection.

The instruments thus used by the author consisted of iron rods about 18 inches long and about the thickness of a lead pencil, provided with a wooden handle at one end. These rods heated white hot served to cauterise the whole of the interior of the lymphatic. The operation is easily performed; the horse is cast so as to expose the affected lymphatics. If the lymphatic is no more than about 9 inches long one excises the bud on the side away from the lymphatic gland and then inserts the heated rod into the exposed orifice and passes it along the interior of the channel up towards the centre of the lymphatic gland. When the affected lymphatic is longer the process is repeated two or three times by passing the rod each time from a distal bud to another situated more centrally. The rods may be curved in order to follow tortuous lymphatics. Cases where the buds are not connected by means of apparent lymphatics are inoperable by this method, but such cases are very rare, and do not exceed 5 per cent. During the first week after the operation an abundant suppuration takes place leading to the shedding of the cord and glandular congestion.

A 10 per cent. solution of tincture of iodine is afterwards injected into the channel. It is claimed that cures can be effected in four to five weeks in cases of horses refractory to all other methods of treatment.

Details are given of eight cases occurring in the French army; on these the author had the opportunity of again testing his method of treatment. The results again proved its efficacy as all the horses were cured in a comparatively short time.—*Trop. Vet. Bullet.*, Sept., 1917.

#### AN ITALIAN METHOD OF ANTI-RABIC TREATMENT.

CLAUDIO FERMI, *Ann. d'Igiene.* 1916.

The method of rabies vaccination evolved by Fermi at Sassari, Sardinia, is briefly as follows.

The vaccine consists of a 5 per cent. emulsion of a potent fixed virus, carbolised 1 per cent., direct from the rabbit or dog. The brain instead of the cord is used, as the former was shown to be more active. The anti-rabic serum is obtained by hyperimmunising horses, using the above vaccine as antigen. The sero-vaccine consists of 1 part of serum and 2 of vaccine, carbolised 1 per cent. The method of treatment consists in the administration of sero-vaccine for the first 5 to 10 days followed by the injection of the vaccine alone up to the 25th day. The mortality from rabies following this treatment was calculated to be lower than that following treatment according to the methods employed by Högyes, Bernstein, and Remlinger. Advantages claimed for the vaccine and sero-vaccine are that they can be preserved for long periods sterile and potent in sealed tubes, can be transported over any distance for use, do not inconvenience the patient, and set up an immunity immediately in the case of severely bitten patients.

The new Italian method is stated to have been substituted in British India for a number of years for the Pasteur and Högyes methods on account of the superior results obtained.—*Trop. Vet. Bullet.* Sept. 1917.

#### MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION. [NATIONAL V.M.A.—NORTHERN BRANCH.]

The quarterly meeting was held at the Grand Hotel, Birmingham, on Thursday, November 28th, 1918, the President, Mr. John Malcolm, occupied the chair. There were also present: Messrs. W. H. Brooke, J. W. Conchie, J. L. Cormack, F. L. Gooch, T. Slipper, F. B. O. Taylor, R. C. Trigger, S. M. Woodward, H. Yeomans, J. Young, and the Hon. Sec., Mr. H. J. Dawes.

Apologies for unavoidable absence were received from Messrs. E. Ringer, J. J. Burchinal, L. W. Heelis, R. L. Phillips, T. J. Brain, E. O'Neill, C. F. Parsons, J. R. Carless, J. Martin, W. Trigger, H. S. Reynolds, R. Hughes, and others.

#### THE DAWN OF PEACE.

The PRESIDENT said they could scarcely pass on to the business of the meeting without referring to the great change that had taken place since their last assembly. No one would then have predicted that we should have peace so soon, but fortunately the unexpected had happened and they met in better spirits in consequence. They of the Midland Association had tried to keep the ball rolling during the past four years, and, taking all things into consideration, he thought they had succeeded. He hoped at their next meeting they would be able to welcome back their absent members who had left their practices at their country's call and helped to bring about such a splendid result.

#### THE QUESTION OF FEES.

The minutes of the previous meeting were taken as read. The Hon. Sec. mentioned that the full report of the discussion on the proposed increase in the scale of professional charges was not published in the press, but a copy of it had been entered on the minutes. A copy of it had also been forwarded to the Royal College of Veterinary Surgeons and to the National Veterinary Association. He had received the following letter in reply:—

Dear Mr. Dawes,

I brought your letter and the accompanying copy of discussion at a recent meeting of the Midland Counties Veterinary Medical Association before the Parliamentary Committee at its meeting on Thursday last. The Committee passed a resolution of agreement with the opinion expressed by your Association, and this was formally adopted at a meeting of the Council held on Friday.—Yours faithfully,

FRED BULLOCK, Secretary.

*Nominations for Membership.* Mr. CORMACK nominated the following members of the profession for membership of the Association:—Mr. C. S. HUNTING, Loughborough, and Mr. JONES, Gloucester.

#### CONTAGIOUS ABORTION IN CATTLE.

J. L. CORMACK, M.R.C.V.S., Coventry.

Mr. CORMACK said: In choosing a subject for discussion to-day, I have been guided mainly in deciding upon Contagious Abortion in Cattle by the following factors: the very great prevalence of the disease; the enormous loss which it causes to agriculture and to the State; the rapid strides which have been made in recent years in a knowledge of it; and the necessity for further investigation of some of its aspects, so that we might be better able to deal with it.

It is a disease with which most of us come into contact almost daily, and upon which it is possible, even probable, that different individuals hold different opinions regarding some of its aspects. I trust that each member will to day express his opinion on the subject, and give his experiences of the disease in any connection, and more particularly if they are calculated to throw further light on our knowledge, especially in reference to getting rid of the disease or otherwise diminishing the losses caused by it.

Contagious abortion may be described as a specific catarrh of the uterus, caused by the bacillus of Bang, and commonly followed by the expulsion of the fetus. The expulsion may take place at any period of pregnancy, but most frequently from the fifth to the seventh month. Some recent writers suggest that this disease ought to be known by another name, such as "Bang's Disease," and one can quite understand that when he recognises than an animal may be infected with the disease without showing any evidence of abortion. I believe that such animals are capable of doing much harm in the way of spreading the disease.

Bang's bacillus is small, even smaller than the tubercle bacillus, non-motile, does not form spores, but is capable of living a non-parasitic life and retaining its virulence for months. It has been found to be capable of growth after as long as nine months. In a susceptible animal, it finds its most suitable place in the uterus, and especially in the pregnant uterus, which appears to be its seat of choice; but it is frequently found in the udder. It does not appear to remain long in the blood stream; but one would like to know whether this bacillus remains for any length of time in the alimentary tract, and if so, whether it can multiply in that position.

Infection is believed to occur most frequently by ingestion, through contamination of the food and water, and most particularly from grazing. In younger animals it is possible that infection is conveyed by the milk either through the presence of bacilli in the udder—which method is not regarded as serious—or through contamination of the teats by discharge which finds its way down the hind quarters of an infected animal and so become swallowed by a calf, or into the milk from the milkers' hands.

When infection takes place by way of the mouth, it appears to reach the uterus by way of the blood stream and so becomes deposited there, but as to how all this

comes about we have no definite knowledge. Several theories have been advanced as to possible modes of entrance into the uterus, but at present we must be content to accept the fact that the bacilli do, by some means or another, find their way into the uterine cavity. Infection *per vaginam* may occur during copulation or, as has been suggested, it may be possible that bacilli passed out in the faeces may be deposited on the vulva and find their way along the vagina and into the uterus.

With regard to the importance of the bull as a factor in carrying infection, there appears to be a difference of opinion, but the weight of evidence would show that while he is not so dangerous in this respect as was formerly believed, he is, nevertheless, capable of infecting cows. The bull can and does become infected with the abortion bacillus, but it is believed that in his system the bacilli do not find a suitable medium for growth, become attenuated, and soon disappear, so that one cannot attach much importance to the risk of infected semen. It is much more possible that the part played by the bull is purely mechanical, and that he is capable of infecting a cow only by serving a clean one within a comparatively short time of having served a recent aborter.

I may say Prof. Williams, of New York State College, has been investigating this subject, particularly in regard to the mode of entry of the bacillus into the uterus, and he, of course, accepts the belief that the chief infection takes place through ingestion, and that somehow or other the bacilli find their way into the blood and ultimately into the uterus. He points out that there are three great seats of the disease, or points of infection, in the uterus—the first and most important being the internal os uteri, and the apices of the two horns. I do not see that there is much to be gained from the practical point of view from that knowledge at the present time, but such knowledge may come in useful later on.

Symptoms of the disease are lacking unless and until some cow or heifer shows signs of slipping her calf, evidence of which may be seen a day or two, or only an hour or two before the act, and in cases occurring very early in pregnancy, the only signs may be the recurrence of oestrus after the animal is considered to have settled to the bull. In those cases which occur later, a discharge, frequently blood-stained at first, but later yellowish, may be noticed, accompanied by relaxation of the ligament, and to a greater or less degree, springing of the udder. It is from now that the animal becomes most dangerous, and begins to spread disease by dissemination of the highly infective discharge. In a large number of the later cases the placenta is retained, evidently as a result of the changes which are produced in the cotyledons by the catarrh. The cotyledons have a distinct yellow colour.

As to diagnosis, while one has usually some idea whether he is dealing with a case of contagious abortion, a definite diagnosis can only be established by the application of one of the following methods:—

(1) Microscopical examination of the exudate or discharge, which can best be procured from the fresh foetal membranes, and perhaps most readily from the cotyledons;

(2) The agglutination test. This is the most useful method and the one relied upon by most experts. It can be applied at any time, and is very delicate and reliable. This test may be applied with either of the following as the agglutinating media—exudate, milk (or better, whey), and blood serum. Blood serum is the most suitable, and is the medium almost invariably used.

(3) Complement fixation method. This is very delicate, and I believe very reliable, but is too complicated for general use.

(4) The abortion test; rarely, if ever applied now, and similar to the tuberculin test in its application.

Prevention is very difficult. It is almost impossible to keep a herd free from the disease in some districts—it is so prevalent and insidious. It will occur on farms which appear to be almost isolated, and to which there is seldom a fresh animal brought. In such cases the only explanation would appear to be that some agent acts as a carrier. It may be a man's boots, a dog, or other means of indirect contact. But much might be done in preventing the most serious source of spread by applying the agglutination test to all fresh cows before bringing them on to the premises. This could readily be done in the case of valuable herds, but it is not quite so practicable at present, where cattle are bought in the open market and while the disease is so common. It may be possible to do so one day, if we should be able to reduce the prevalence of the disease. Once the disease has appeared on a farm, the aborting animal should be immediately isolated and the most rigid sanitary measures adopted. Isolation of the cow should be maintained for several weeks, and certainly so long as there is any evidence of discharge. If remaining, remove the placenta, disinfect frequently the uterus and hind parts, including the tail and udder. Burn or bury deeply the calf and membranes. Thoroughly disinfect the premises, burn all litter, and disinfect utensils, men's boots, etc. Test all other members of the herd, and re-test them in six or more weeks, and should the case be an isolated one either have her removed to an infected farm or stall-feed her.

In badly infected farms, one would adopt vaccination in an endeavour to cut the outbreak short, and certainly to bring about a great saving both in milk and calf life.

It is pretty generally accepted that contagious abortion has a great tendency to wear itself out, and that many animals which have had an attack of the disease acquire a degree of immunity from it. Most animals acquire immunity after one attack, but many abort a second time, and some even a third time. To explain this may be difficult, but it seems feasible that many naturally infected animals will not have had a sufficiently large dose to provide complete immunity, and others may not be capable, for some unknown reason, of producing the immunising material in sufficient quantity. To hasten this immunity, the Board of Agriculture decided to experiment with animals by inoculating them with a large dose of bacilli. The experiments were successful; so also have been the extensive field experiments carried out in different counties, where the percentages of abortion have been reduced from sometimes as much as 70 per cent. to about 5 per cent., and even less.

The Hon. SEC., before the discussion continued, read to the meeting some notes on the subject recently issued by the Board of Agriculture for the benefit of breeders and veterinarians generally.

Mr. TRIGGER said the profession generally realised that this was one of the most difficult subjects they had to deal with at the present time. The loss which was sustained by stock owners was very serious, as it was to the public generally. The disease was allowed to run rampant through the country without any serious attempt to deal with it, until late years. It might be difficult, as the essayist said, to ascertain how the disease made its appearance at a certain farm, but he thought it was very wicked that a man, when he found that his cows began to abort, should at once send them to auction. He had heard farmers say they could pick these animals out before they aborted, and they soon got rid of them. These animals entered the market, their excretions were there, and farmers got it on their boots and so took the disease home to their own farms.

There should have been legislation on this subject years ago. Every man should be compelled to give notice of abortion on his farm, and cattle from that farm should not be allowed in any auction at all. The Board of Agriculture and the younger members of the veterinary profession were to be congratulated on what they had done so far, because he thought inoculation with vaccine had been attended with very good results. He was of opinion that vaccination should be compulsory on farms where abortion existed. He recognised that there was a difficulty, especially in a herd of 60 or 80 cattle, but they could be done in groups. There was no doubt that the animal that was doing most mischief was the one that showed no signs of disease. He thought it was rather a stretch of the imagination to say that infection took place while calves were sucking. Were they to believe that the bacilli remained in the calf until it was old enough to go to the bull?

Mr. GOOCH said he attended a meeting at Norwich two years ago, when Sir Stewart Stockman addressed the Norfolk Agricultural Association on this very subject. One of Sir Stewart's great points was that farmers should retain all aborted animals if they wished to get rid of the scourge. Farmers seemed to think it necessary to immediately get rid of an aborting animal from their herds, but Sir Stewart Stockman suggested that it would be better to keep them and breed from them again after using vaccine. He (Mr. Gooch) had had good results from retention and natural immunising.

Mr. TAYLOR said the subject was of great interest to the country practitioner. His own little experiments with the vaccine treatment had had good results. At one farm he vaccinated 24 heifers, according to the Board's regulations, and every one carried her calf. At another farm, three or four had slipped their calves, but they were vaccinated, and they now carried their calves right through. It would be interesting to know long this vaccine carried immunity. After vaccination, he had had some cattle fall off in condition, but he could not say whether it was a common occurrence.

Mr. YEOMANS said his experience of the subject was limited, but he thought that in future milk production was going to be such a very important branch of agriculture that there would be plenty of work for veterinary surgeons in the use of this vaccine test. If the results are satisfactory, which they promise to be, it would give them an opportunity of demonstrating to agriculturists the value of the veterinary profession, which would be a good asset to the general practitioner.

He would like to hear whether any member had had any experience of an outbreak of abortion in mares. Although dairy cows were very valuable, Shire mares were more so.

The HON. SEC. said he must first of all thank Mr. Cormack for his readiness in acceding to the request made to him for a paper. It was an example which he would like to see followed by other members. It seemed to him that this question of contagious abortion in cattle was much more difficult than it appeared to be. If a cow that has aborted has a calf put with it and is sent into the market it is a difficult thing to tell that it is an aborted animal. There may be nothing to guide you in the matter. Until something more definite was obtainable in a diagnostic sense, it was a disease that would take a lot of reckoning with. Again, a farmer was told that if his cow aborts he must take it into another building, but how many farms are there where that could be done? The farmer did not like turning a sick animal out of a warm shed. Another difficulty was that knowledge of the outbreak did not come to the veterinary surgeon first hand. The trouble had probably been going on for some time before the farmer mentioned it, and it had probably assumed extensive proportions before the veterinary surgeon

knew anything about it. Reverting to the question of the difficulty in telling aborted animals, he expressed the opinion that the State should take this matter up and submit all dairy animals to the test to find out whether they were affected. It would no doubt be a big undertaking, but it would help to get rid of the disease.

The PRESIDENT added his thanks to those of previous speakers for the very interesting discussion which Mr. Cormack had opened. Abortion in mares was a very serious matter, considering the value of a foal, but he did not think it was so widely spread and in such general epizootic form as in cattle. He understood that the casual organism was different in mares from what in cattle, and still different in the case of sheep. One point in the discussion seemed a little strange to him, and that was the effect upon calves. It was suggested that calves were infected with the abortion bacillus either through drinking milk from infected udders—not an uncommon seat of infection—or through sucking teats that have become infected by a discharge coming down the mother's hind quarters. He had some hesitation in accepting that, considering the length of time that must elapse before the calf became infected in that way and its having a calf of its own. If they could vaccinate cows that were non-pregnant with the abortion bacillus and two or three months afterwards safely put them to the bull, he could scarcely conceive that a cow infected years before would be likely to abort. The methods of infection were not altogether clear. As there was no direct opening in the womb through which the infective discharge might enter, they must look to the blood stream as the source of contagion. Mr. Cormack told them that the abortion bacillus was non-motile, so that it was difficult to understand how it entered the womb except through the blood stream.

With regard to prevention, where a farmer has no abortion, and he decides to keep his breeding at home, he will continue for a long period without a case on his premises. There was direct experience on that point in testing for tuberculosis; and by inducing a farmer to do his breeding at home, they had helped to stave off three of the most virulent diseases of the present day—Tuberculosis, Abortion, Johne's disease. He would like to impress upon every member the importance of persuading farmers to take every step that was possible in the eradication of those three diseases. If it was taken up properly, it was not an expensive matter to the farmer, and incidentally it was remunerative to the veterinary surgeon. With regard to the eagerness of the farmer to sell an animal that was likely to abort, he did not think the farmer really meant to do his neighbour an injury, but he only looked at the question from his own point of view. The only thing for the veterinary surgeon to do, and for the State to do, was to educate the farmer, who, if he knew he was going to financially injure his neighbour by selling him an aborting animal might be a little more careful. As to putting another calf to an animal that had aborted as a better means of selling it, that of course, was a very reprehensible practice. From what he could gather, both Sir John M'Fadyean and Sir Stewart Stockman were against compulsory legislation in the matter, but personally, he thought that any farmer who took a recently aborted cow out of his herd and sent her to the public market was guilty of an offence which ought to be punishable.

As to the retention of aborted animals, raised by Mr. Gooch, he thought everyone with practical experience would agree that it was the right thing to do. In ever so many herds, contagious abortion had gradually died out in the ordinary way. Unless any new cows were brought on to the farm, it generally died out in two or three years, so that when a cow had aborted it seemed

to be the right thing to keep it in the herd. Whether it was still capable of spreading abortion was another matter.

It would be interesting to know whether it was possible for infected milk to transmit the disease to the human being. He believed that some recent experiments had shown that it was not possible.

Mr. BROOKE said he would like to ask a question. As the alimentary tract seemed to be recognised as a frequent means of infection, he would like to know on what grounds that opinion was formed.

#### REPLY.

Mr. CORMACK said there seemed to be very few diseases in the country that were more important from a national point of view than contagious abortion in cattle. The loss spread over the British Isles in a year must amount to an enormous sum of money. Some years ago the loss estimated to occur from animals that aborted was £7-10-0 per head, so he did not know what the loss could be reckoned at to-day, with the price of cattle and milk so much higher than it was. As to sending an aborting cow to market with a normal calf, he should say it was a very shady practice which ought to be covered by some form of legislation.

Mr. TRIGGER: I should think it is a fraud, if you could prove it.

Mr. CORMACK said he thought Sir John M'Faydean and Sir Stewart Stockman were disinclined to suggest any form of legislation in regard to notification of the disease. Sir Stewart Stockman in one of his papers, said it would be too expensive for any particular district to take up. It would have to be administered all over the country from headquarters, and there would be very great difficulty in carrying out, which would probably amount to the paralysing of the cattle industry. With regard to the possibility of infection in the calf while sucking, he did not suggest that a heifer calf was going to carry the bacillus in her system until she was old enough to calve herself. But one could not get away from the possibility of the calf swallowing large numbers of bacilli from the milk and spreading them. He had not seen anywhere any remarks regarding the possibility of the spread of the disease by means of the faeces. Was it to be supposed, when infection took place by means of the mouth, that every single bacillus that got into the alimentary tract found its way into the blood stream, or must they conclude that large numbers of the bacilli were passed out in the faeces? The mouth was believed to be the main source of contagion, both experimentally and clinically, and practically all the evidence went to show that infection, certainly in the case of the uterus, was conveyed by the blood stream. If so, one must eliminate to a very great extent the question of infection by the vagina. When the disease was generally found in prescribed areas and in remote parts of the uterus, one must conclude that it arrived there by the blood supply. He did not see how they could get infection of the uterus through the vagina, unless it was through the agency of the bull. A great many heifers aborted at grass, so that the grass became highly infected and the disease was spread in that way. It is possible that an animal which has been vaccinated could spread infection by means of the bowels, and if she happened to abort she would certainly spread it by means of the discharge.

Mr. BROOKE: Vaccination would have no effect on the bowels?

Mr. CORMACK: I should think it might, because you can't get any part of the body that is not supplied with blood.

Mr. BROOKE: Except that the alimentary canal is outside the blood.

Mr. CORMACK, continuing, said that the retention of aborting animals was the only wise thing to do in cases

where the disease was present to any great extent. If there was only an isolated case, he advised testing the other animals, and re-testing in a few weeks time. If there were no reactors, he thought it would be foolish to retain that animal on the farm.

Mr. GOOCH: If natural immunisation takes place, why get rid of it?

Mr. CORMACK: Natural immunity does not always occur; you get disease a second, and even a third time. The results of vaccination have been exceptionally good, but he would not say that all the results were due to vaccination. He had not noticed any cases of loss of condition, referred to by one of the speakers, and he had not received any complaints about loss of milk through vaccination. He had no knowledge of the length of time infection might last in the alimentary canal.

He had seen some mares that slipped their foal, but he did not know that it was due to contagious abortion. It could be produced in a mare experimentally by means of Bang's bacillus, but the mare was not liable to contract this disease naturally. Abortion in sheep was also a distinct disease. There have been cases of cattle in which the causal agent was the vibrio which causes abortion in sheep, but such cases were rare. Abortion is not so prevalent in mares, and a point to note in this connection is that mares generally foal at one particular time of the year, whereas cattle calve at all times of the year, and as the pregnant uterus was the chief habitat of the bacillus it was kept vigorous all the year round. He thought the chief risk of infection through the vagina was that the bull might carry the infection from another cow, or he might inoculate the uterus with germs which he might take in from the lips of the vulva of the particular cow he was serving. He agreed that there was great need for the further education of the farmer in these matters as a means of checking the spread of the disease.

On the motion of the President, seconded by Mr. Gooch, a vote of thanks was accorded Mr. Cormack for his address, both gentlemen agreeing that the whole discussion had been very informative.

The company adjourned for tea before separating.

H. J. DAWES, F.R.C.V.S., Hon. Sec.

### COCCIDIOSIS IN THE RABBIT.

To the Editor of "The Veterinary Record."

Sir,—The last issue of *The Veterinary Record*, (4th January), contains a report of a meeting of the Central Veterinary Society, at which a paper on Coccidiosis in the Rabbit was read by Mr. J. B. Buxton, F.R.C.V.S., D.V.H. In the debate which followed apparently nearly every statement made in this paper was accepted as correct, or at least allowed to pass without challenge, and one member went so far as to say that "Mr. Buxton's paper would be of great value abroad as well as in England." I venture to say that that opinion is not likely to be shared by anyone who is well acquainted with the disease in question.

It appears to me to be much more likely that, if the erroneous statements made in the paper are allowed to pass uncontradicted, readers abroad may infer that the study of coccidiosis of the rabbit has been sadly neglected in this country, and it is the fear of that result which impels me to take upon myself a very uncongenial task.

Premising that "some knowledge of the manner of reproduction of the parasites is essential to the clinician in order that the spread of the disease may be satisfactorily limited," Mr. Buxton goes on to give a description of the life cycle of the parasite which is replete with errors:—

(1). Mr. Buxton says: "The oocysts are expelled from the body with the faeces, and under favourable con-



ditions of warmth and moisture the cell contents divide into two and then into four spherical bodies, called Sporoblasts."

This is an inaccurate account of sporoblast formation, and no one who has followed the process could have fallen into the error. I challenge Mr. Buxton to produce a preparation showing an oocyst containing two sporoblasts.

(2). Continuing the account of the oocysts, Mr. Buxton says: "If a rabbit ingests such a cyst, the wall becomes dissolved and the sporocysts are liberated. These in turn rupture and set free the sporozoites or falciform corpuscles."

Each of the sentences here quoted contains a misstatement. Since the publication of Metzner's observations it has been known that the wall of the oocyst does not become dissolved, that the sporocysts do not burst, and that the liberation of the sporozoites takes place without either of these things happening.

(3). Professing to describe the formation of microgametes, Mr. Buxton says: "The nuclei become elongated and comma-shaped, and two flagella appear towards the anterior extremity." He also gives a figure of a microgamete in support of this statement, but it bears only a most distant resemblance to the microgamete of the rabbit coccidium, and only serves to show that he had never seen the object he was describing.

What has just been said also applies to the figure which is labelled "Macrogamete" and shows an indentation marked "micropyle." Mr. Buxton evidently does not know that macrogametes do not possess a micropyle, the thing so named being seen only in the oocyst. But in point of fact the figure does not bear the most distant resemblance to either a macrogamete or an oocyst; and, if it is accurate, one can confidently assert that the object from which Mr. Buxton made the drawing was not a coccidium at any of its stages.

(4). With regard to the fertilisation of the macrogametes, Mr. Buxton states that "A single male element penetrates the female cell at the micropyle, which then closes."

This I believe to be a most unwarranted statement unless Mr. Buxton is prepared to vouch for the facts from his own observations, or to give the name of an authority who does.

(5). Mr. Buxton's description of the lesions is equally inaccurate. Abscesses are never formed in the liver in cases of coccidiosis in the rabbit, or, if they are, coccidia have nothing to do with their formation.

The bile ducts do not become more branched, and the connective tissue does not become hypertrophied, nor does it produce either venous congestion or atrophy.

Two courses are now open to Mr. Buxton. (1). He may vouch for the accuracy of the statements which I have criticised, but in that case he ought in justice to previous authors to have given his reasons for dissenting from them. (2). He may say that he was not professing to describe what he had himself observed, but merely quoting for the instruction of the Central Veterinary Society from the writings of others. Unfortunately he has made that line of defence very difficult, for the part of his paper which deals with the disease in the rabbit does not contain a single reference to any authority on the subject. The whole tenor of his paper conveyed the impression that he was giving the Society the benefit of his own observations, and, without demur, he accepted the compliments which appear to have been paid to him on that understanding.

It is also not open to Mr. Buxton to excuse himself on the ground that the errors which he committed were trivial or practically unimportant, for he told the "Clinicians" who he was addressing that a knowledge of the facts was essential "in order that the spread of the disease may be satisfactorily limited." He is therefore bound either to maintain the accuracy of his statements, or to

apologise to the members of the Central Veterinary Society for having misled them.—Your obedient servant,  
J. M'FADYEAN.

Ryl. Vety. Coll. 7th January.

#### THE R.C.V.M.A. AND THE COUNCIL R.C.V.S.

Dear Sir,—Isn't "Reform" a little illogical when he asked, in your last issue, for us to eliminate from our minds "those who study personalities prior to professional interests" after he himself indulged freely in them?

The bulk of the members of Council are representative practitioners and should know the requirements of the majority of the profession. If they being tame sheep, were to be replaced by others of improved capacity should we fare better? Why blame the few schoolmen for a greater number of the Council, who has the wisdom of the speechless parrot? It seems to me the few have more forcible characters than the majority.

I quite agree with Prof. Gaiger's remarks. The tame sheep representing the bulk of the profession are on the Council at the will of the majority of the profession. Please, fellow practitioners, don't talk, think, and grumble. Let us act. The ultra scientists have done more for the profession than the majority of practitioners, who have the wisdom of the ants. Judging by the latters' contribution to the sum total of veterinary knowledge and progress, it is with them "take all, and give nothing."

"ACTION NOT TALK."

Dear Sir,—I have read with considerable interest the "After War problems," reported in *The Veterinary Record* of 28th December last, and feel that our grateful thanks are due to the President of the Royal Counties V.M.A. for giving expression to the thought which has occupied many of our minds for some time past—that things were not altogether well with us.

There is no doubt that the profession is suffering from an anaemia of a very pernicious nature—an anaemia due in a great measure to the apathy of a goodly number of its members.

If steps are not immediately taken to infuse new blood into the ranks of our governing body the profession's parlous condition will become one of utter hopelessness.

The forthcoming election gives each one of us an opportunity to put our house in order. The veterinarians who have served their country well, and upheld the dignity of the veterinary profession in every sphere of military operations, will not, I opine, be prepared to return home to the old regime; and I appeal to them to support with their votes only those who will maintain the status we have gained during the war, and who will take reasonable interest in our destiny.

Many of the present Council have been vouchsafed long terms of service at the Council Board, and in the interests of the Royal College of Veterinary Surgeons, their retirement would now prove advantageous.

It is certainly time that we should free our governing body from the domination of those who, in the midst of weakness, have assumed autocratic rule, or whose only power is that conferred by virtue of official position.

Let us place on our Council men with broad views, sound judgement, and without the proverbial axe to grind—men who will use every endeavour to raise our profession to that position among the arts and sciences which its nobility and importance dictates.

I agree with Mr. Gaiger, that "long range sniping" does not make for good—one so often misses the mark, or hits the wrong one. To clear the trench which holds up our advance is strategically sound, and with this object in view, I subscribe myself,

BOMBER.

## TRIORCHIDY—CASTRATION.

"Scrutator," in your last issue, wrote:—"that the practitioner, against whom the case went, was speaking the truth—that he did remove two testicles."

I never said or did anything of the kind. What I did was to remove a testicle and a tumour in the spring of 1916, and remove a tumour in the spring of 1917, *i.e.*, only one testicle and two tumours. When the tumour dropped off some farm hands said it was a testicle, which I consider to be "bunkum."

It is not my opinion that it was a case of triorchidy.

"Scrutator" further writes: "It is a pity I did not proceed for a new trial, etc., so as to safeguard the profession against a further charge of unskillfulness—which it amounted to." "Scrutator" might have put it in another way—the profession ought to have proceeded to a higher court, to clear my reputation and safeguard the profession, etc. Many years ago, however, I put down the profession collectively as a dead letter.

"Scrutator" is also wrong as to "unskillfulness." The Judge found negligence in that I removed a healthy testicle, cut the scrotum open for removal of second testicle, that I found a healthy testicle and simply left it there.

If "Scrutator" had as much work in hand at the time of the trial as I had he would think twice before proceeding for a new trial. Personally, it would not be worth while as far as I was concerned. What I did was to put the country-side ablaze with copies of my letter as it appeared in *Record*: so much so, that at a subsequent Redhill Market I had quite an ovation—metaphorically speaking, carried shoulder high—and the defendant, and V.S. who supported him, were called unmentionable names.

In conclusion, had I realised so much before the trial as I did afterwards the case would not have come up at all. I would simply have written the defendant to stick my fee in a rather peculiar part of his anatomy, and added a rider to the effect that he was not to send for me again.—Yours, etc.

The Gables, Reigate.

CHAS. A. SQUAIR.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

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## ARMY VETERINARY SERVICE

## THE MILITARY CROSS.

The King has been pleased to approve of the following awards for distinguished service in connexion with military operations in France and Flanders. Dated Jan. 1, 1919:—

\* \* \* \* \*  
Capt. R. J. Vickers, Can. A.V.C., 2nd Can. M.V.S.

## ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following appointments to the Most Excellent Order of the British Empire, for valuable services rendered in connexion with military operations in various Fields (Dated Jan. 1, 1919):—

O.B.E. (Military Division).

*Italy*—Temp. Maj. T. Bone, M.C.; Temp. Capt. D. Starkey; Capt. (actg. Maj.) W. Stothert (T.F.).

C.B.E. (Military Division).

*Egypt*—Maj. (Temp. Col.) A. G. Todd, D.S.O.

O.B.E. (Military Division).

Capt. (actg. Maj.) V. A. Bartrum (T.F.); Capt. (actg. Lt.-Col.) W. J. Dale; Bt. Maj. G. E. Tillyard; Maj. (temp. Lt.-Col.) J. Kendall, Aust. A.V.C.

*Salonika*—Maj. W. L. Harrison, F.R.C.V.S. (T.F.); Temp. Capt. G. Moir.

## MOST HONOURABLE ORDER OF THE BATH.

The King has been pleased to give directions for the following promotions in, and appointments to, the Most Honourable Order of the Bath, for valuable services rendered in connexion with military operations in *Salonika* (dated January 1, 1919):—

C.B. (Military Division).

Col. (temp. Brig.-Gen.) Fitzpatrick Eassie, C.M.G., D.S.O.

## PROMOTIONS AND OTHER REWARDS.

War Office, Jan. 1.

The King has been pleased to approve of the following rewards for distinguished service in connexion with Military Operations in *Egypt* (dated Jan. 1, 1919):—

## THE MILITARY CROSS.

*Egypt*—Capt. G. C. Page, Aust. A.V.C., attd. 1st Sig. Sqdn., Aust. Engrs.

TO BE BREVET LIEUT.-COLONEL.

*Salonika*—Maj. (temp. Lt.-Col.) W. A. Jelbart.

TO BE BREVET MAJOR.

Capt. (actg. Maj.) C. A. Murray.

## HOME SERVICES.

The King has been pleased to give orders for the following promotions in, and appointments to, the Most Honourable Order of the Bath, for services in connexion with the War (dated Jan. 1, 1919):—

C.B. (Military Division).

Maj. and Bt. Lt.-Col. (actg. Lt.-Col.) Arthur Olver, C.M.G., F.R.C.V.S.

## ORDER OF ST. MICHAEL AND ST. GEORGE.

C.M.G.

Maj. and Bt. Lt.-Col. (actg. Col.) Wm. Samuel Anthony; Maj. and Bt. Lt.-Col. John James Aitkin, D.S.O.; Capt. and Bt. Maj. (actg. Lt.-Col.) Alfred Searle Head, F.R.C.V.S., R. of O.

## ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following promotions in, and appointments to, the Most Excellent Order of the British Empire, for valuable services rendered in connexion with the War:—

M.B.E. (Military Division).

Temp. Qrmr. and Capt. C. Budd; Hon. temp. Lieut. G. Hetherington; Temp. Qrmr. and Capt. R. Owen.

OFFICERS (Civil Division).

Lieut.-Col. Francis Dillon Hunt, Ahmednagar, Bombay.

## PROMOTIONS AND OTHER REWARDS.

The King has been pleased to approve of the following rewards for valuable services rendered in connexion with the War (dated Jan. 1, 1919):—

TO BE BREVET LIEUT.-COLONEL—Maj. G. C. O. Fowler, Ret. pay (R.A.V.C.).

TO BE BREVET MAJOR—Capt. A. F. Castle, F.R.C.V.S. (T.F.); Capt. (temp. Maj.) J. Tagg (T.F.).

TO BE MAJOR—Qrmr. and Capt. T. E. Campey, M.B.E.

The King has been pleased to give orders for the following appointments for valuable services rendered in connexion with Military Operations in *North Russia* (dated Jan. 1, 1919):—

O.B.E. (Military Division).

*North Russia*—Temp. Capt. (actg. Maj.) F. Chambers.

War Office, Jan. 6.

In a dispatch received by the Secretary of State for War from Gen. F. R., Earl of Cavan, K.P., K.C.B., M.V.O., Commander-in-Chief of the British Force in *Italy*, the following names of those officers whom he considered deserving of special mention were submitted:—

Capt. (actg. Maj.) T. J. Faithfull; Maj. (temp. Lt.-Col.) H. S. Mosley, D.S.O.; Capt. (actg. Maj.) W. Stothert (T.F.); Capt. (temp. Maj.) T. Bone, M.C.; Temp. Capt. D. Starkey.

Extracts from *London Gazette*.

WAR OFFICE, WHITEHALL, Jan. 3.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS. Maj. W. Jowett, S. Afr. Vety. Corps, to be temp. Maj. (Apl. 9, 1918, seny. Dec. 1, 1914) (substituted for notification in *Gazette* of Apl. 27 and May 30, 1918).

Jan. 4.

Maj. C. M. B. Harris, D.S.O., F.R.C.V.S., to be Lieut.-Col. (Dec. 15, 1915, but not to carry pay or allowances of that rank prior to July 1, 1917, unless holding temp. or actg. higher rank with pay and allowances).

Jan. 6.

The following temp. Capts. relinquish their commns. (Jan. 7), and retain rank of Capt.:—On account of ill-health—J. W. Bennett, T. A. Huband, W. Bugg; on account of ill-health contracted on active service—R. W. Glaister.

Jan. 7.

To be temp. Lts.:—H. L. Dixon (Oct. 18, 1918); J. S. Shepherdson (Oct. 24, 1918).

The following temp. Lts. relinquish their commns.:—H. L. Dixon (Dec. 5, 1918); J. S. Shepherdson (Dec. 7, 1918).

Jan. 8.

Temp. Lt. to be temp. Capt.:—G. C. Lawrence (Dec. 14, 1918).

## OBITUARY.

WM. CLATER WILKINSON, M.R.C.V.S., Hill Side House, Hemswell. Graduated, Lond: July, 1906.

### Successful Ballot at Belfast.

A sum of about £1,000 has been raised for the Royal Army Veterinary Corps Comforts Fund as a result of a ballot organised by Mr. J. Ewing Johnston, Veterinary Officer in charge of the Remount Department at Balmoral, Belfast; and Mr. F. W. Brittain. These gentlemen not only promoted the ballot, but carried out the whole of the arrangements, and the success achieved is a striking tribute to the energy and thoroughness with which they performed their praiseworthy work. There were 25 prizes, the first being a thoroughbred mare, the second a fat bullock, the third a sheep, the fourth a pig, and the fifth two tons of house coal. The draw took place in the Imperial Picture House on the afternoon of December 20th. The counterfoils of the tickets which had been sold were placed in a large churn, and the winning numbers were drawn by the Honourable Mrs. Herbert Dixon. Amongst those present were the Lord Mayor and Lady Mayoress (Sir James and Lady Johnston). A telegram was received from Colonel R. H. Holmes, C.M.G., D.D.V.S., Dublin, expressing regret for his unavoidable absence.

The Lord Mayor, speaking previous to the draw, said Mr. Johnston and Mr. Brittain had been indefatigable in bringing the claims of the Royal Army Veterinary Corps under the notice of the public, and they were entitled to the utmost praise for the efforts they had made to help the Comforts Fund. The officers and men of the Corps would realise that they had not been forgotten by the people of Belfast, and they would certainly appreciate the very handsome contribution which the promoters of the ballot were able to make to the fund for providing them with comforts during the festive season. (Applause.)

Mr. J. Ewing Johnston said the Royal Army Veterinary Corps Comforts Fund had supplied large quantities of warm clothing, stationery, books, magazines, pipes, tobacco, cigarettes, and brushes to units serving in France, Egypt, Salonica, Mesopotamia, Gallipoli, Italy, Russia, and Serbia. It had also provided two V.A.D. hospitals, working in connection with the veterinary and remount camps in France. Many of the senior officers had written to the honorary secretary testifying to the men's appreciation of the gifts. The subscriptions from Belfast had only amounted to about £400, but the contribution of £1,000 from the ballot was the largest donation the fund had received from any source. The

thanks of the promoters were due to the donors of the prizes, and especially to the members of the Dixon family, who were always in the forefront in any effort on behalf of war charities. Sir Thomas Dixon gave a handsome donation, the first prize was presented by Major Daniel Dixon, and through Captain Herbert Dixon they had been able to defray all the incidental expenses. (Applause.) Thanks was also due to those who had sold tickets, and to the directors of the Imperial Picture House for allowing them to hold their draw in their premises. (Applause.)

The draw was then made by Mrs. Dixon. It was decided that the first prize should go to the holder of the thirteenth ticket drawn, and the winner was Miss Thompson, Glastonbury Avenue, Belfast. The second prize went to Mr. E. Hetherington, Upper Newtownards Road, Belfast; and the third to Miss Macbeth, Carlisle Road, Londonderry.

On behalf of the promoters and a few friends, Miss Emilie Johnston, daughter of Mr. J. E. Johnston, presented Mrs. Dixon with a beautiful hunting refreshment case.

The Honourable Mrs. Dixon, in reply, said she regarded it as a great privilege to have been entrusted with the responsibility of drawing the winning tickets. The men to whom comforts were to be sent by means of this fund had devoted their efforts to the alleviation of the suffering of army horses. Those animals had experienced the horrors of the war just as much as the men engaged in it, and she hoped the people who had failed to win prizes would remember that fact. (Applause.)

The Lord Mayor said Mrs. Dixon had endeared herself to all of them by the work she had done during the war, and the same remark applied to every member of the Dixon family. They were ever ready to give their help in furthering any scheme for the benefit of our fighting men, and their generosity was unbounded. (Applause.)

On the motion of Mr. J. M. Hamill, seconded by Mr. J. A. Jordan, a vote of thanks was accorded the Lord Mayor for presiding, and the proceedings then terminated.—*The Belfast News-Letter*.

[Owing to pressure of other matter on our present limited space, the foregoing has unavoidably been held over.]

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confirmed		Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.	Outbreaks	Animals.		Outbreaks (a)	Slaughtered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Jan. 4	8	2	5	5					189	444	22	26	15
Corresponding week in	1918		8	10			1	2	161	361	23	27	6
	1917		20	20					81	194	23	48	16
	1916		15	15			1	5	65	152	33	90	220

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Jan. 7, 1919

† Counties affected, animals attacked:—

Excluding outbreaks in army horses.

IRELAND.		Week ended Jan. 4		...	...	...	...	...	...	Outbreaks	...	...	...
				...	...	...	...	...	...	1	13	3	13
Corresponding Week in.	1918	...	...	...	...	...	...	...	...	4	17	...	...
	1917	...	...	...	...	...	...	...	...	1	20	3	18
	1916	...	1	5	...	...	...	...	...	3	13	1	...

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, Jan. 6, 1919  
 Note.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1593

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VOL. XXXI.

## THE COUNCIL MEETING.

Perhaps the most noteworthy, and certainly the most pleasant incident at last week's Council meeting, was the presentation to the veteran Treasurer which commenced the proceedings. Such a compliment in the Council Chamber is a very exceptional event; but the services which evoked it are equally exceptional. Thirty-four years of hard and continuous Council work have placed us under a debt which can never be repaid; but this little offering was a graceful recognition of it. The President, in making the presentation, expressed himself very happily; and his words will be endorsed by the whole profession.

The financial report was rather worse than usual, mainly from the few students presenting themselves at the Christmas examinations, partly from the inevitable falling off of voluntary subscribing at the end of the year. We all know the one way of retrieving the position before the April meeting.

All members will wish well to the Mettam petition, and some may be able to help it forward. The President especially asked Councilmen in a position to obtain influential signatures to do so; and not a few outside members may find themselves able to do the same thing. Those who can should lose no time in communicating with the Secretary.

Some other subjects dealt with were important, but none seem to require much comment at present. Some were briskly discussed; but in almost, if not quite every instance the discussion was more or less superfluous. Still, those who read the report carefully will discover some points of interest. Veterinary demobilisation is impossible at present; but the progress already made with the schemes for the re-settlement of veterinary surgeons in civil life and for financially assisting would-be veterinary students augurs well for the future prospects of the profession. Our Bill is to be re-introduced in Parliament, and an attempt is to be made to get it adopted as a Government measure; and we all understand how much depends upon whether that can be accomplished. A little correspondence item regarding the supply of linseed oil will be cheerful reading to many practitioners, especially to the country men. Lastly, it is pleasant to congratulate President and Council on having, at the first meeting after the cessation of hostilities, secured an attendance large enough to act upon Registration Committee reports. It was not done easily, but it was accomplished; and we may hope that it marks the end of the most serious cause of complaint that the profession has had against the Council's work during the war.

## ACTINOMYCOSIS IN A MARE, TREATED WITH AUTO-VACCINO-THERAPY.—RECOVERY.

By WM. SCOTT, F.R.C.V.S. F.R.M.S., Bridgwater.

*Subject.* A six-year-year-old light draught cart mare.

*History.* On the 15th Feb., of this year, I was asked to prescribe for this patient, the owner complaining of her being "tight in her coat." A course of Arsenic, Ferri sulph. and Sodii chlor. was supplied. The mare becoming worse and losing in condition, I was asked to see her on the 10th April.

*Symptoms.* The patient walked very stiffly, dragging her hind legs, which were kept widely apart; when turned, the whole trunk appeared rigid, giving the animal the appearance of suffering from tetanus. The left mamma was considerably swollen, hard, and fibrous to the touch, except at a point close to the base of the teat, which was fluctuating, suggesting the pointing of an abscess. The right mamma appeared perfectly normal. The functions of the panniculus carnosus were entirely obliterated, the skin was fixed and rigid, save in those areas covering the upper two thirds of the neck, on the head, on the inter-maxillary space, on the lower and lateral areas of the abdomen save that of 12 or 15 inches in front of the mamma. Over the regions of the back, loins and chest the skin was absolutely fixed, in fact the animal felt as if she might have been subcutaneously encased in a thick sheet of lead. Over the fore-arm and scapula, under the line of the trachea, and extending about 18 inches in front of the mamma along the abdomen, could be felt distinct cords with equi-distant nodules. If the hair was wetted with oil or water these areas could be seen to stand out prominently. There were no indications of suppuration or ulceration in these parts. It is reasonable, however, to anticipate that such developments would have taken place had the case been allowed to run its course. In any case a "cold" abscess had formed in the udder.

*Clinical diagnosis.* A malignant neoplasm having its origin probably in the udder, from which extension had taken place through the lymphatic network to the subcutaneous structures.

My previous experience of a parallel case occurred in the year 1910, which was treated on general lines with negative results and the animal had to be destroyed. No post-mortem examination was made and I did not suspect actinomycosis, nor did I in the case under discussion up to this point.

*Bacteriological diagnosis.* (a) Microscopical.—The skin of the mamma covering the pointing abscess was scrubbed with lysol, dried with cotton-

wool, painted with iodised petrol, and lanced with a sterile lancet. About 50 c.c. of pus was evacuated, the last few drops being collected in a sterile tube (marked No. 1) and plugged. A further collection was made by inserting a sterile curette and lightly scraping the abscess cavity wall. This was placed in another sterile tube (No. 2).

The pus was very viscid and glairy. A drop from No. 1 tube was placed on a clean slide, and another slide applied to it and pressed firmly, they were then parted, the smears fixed and stained by Gram's method and examined under the microscope. Save for the usual pus elements, minus bacteria, nothing positive was noted. A drop of pus from tube No. 2, similarly treated, revealed in addition several star-shaped colonies, the central portion consisting of principally a mass of cells densely packed, and radiating from this mass a network of entangled threads on the outer zone of which a few well-defined club-shaped elements were noted. These were flask-shaped, the neck portion being joined to the thread. Several giant cells were also seen in this field.

(b) Biological.—Nutrient agar (plain), Litmus agar, glycerine agar, and blood agar tubes were inoculated from the pus contained in tube No. 2, and incubated at 37° C. On the seventh day of incubation in the glycerine tube, small, pale, almost transparent, bead-like colonies were noted. Three days later fully developed rich, white porcelain-looking colonies with slightly crenated edges had formed, giving the whole surface of the tube the appearance of a network of fine roses, such as is seen in old Valenciennes lace. These colonies had roots firmly embedded in the media, and if the surface was removed by a platinum loop, or even scraped with a fine sterile lancet fresh growths would rapidly recur; the cultures were pure throughout, and subsequent sub-cultures grew rapidly and easily on plain agar in 24 to 30 hours. From these I obtained my vaccines. With a sterile loop a removable portion of a colony was picked up, mixed with a drop of distilled water previously placed on a grease-free slide, dried and stained: the following elements were noted. Somewhat dense tufts of mycelia, usually irregularly arranged, some, however, showed a faint semblance to radiation, many of the threads were branched, and a few at their distal ends carried clubs. The threads took the aniline stains well. Numerous cocci-like elements were also seen in the field.

*Treatment.* (a) General.—The animal was running at grass, and was allowed to do so with the exception that she was brought indoors at night till late in the spring. The abscess cavity in the udder was irrigated three times with a solution of proflavine and sodium cit., and the following prescribed:—

R. Sodii citratis  
Sodii chloridi aa ʒj.  
M. Ft. pulv. mitte xii.  
Sig. Pulv. Bis in d.

(b) Special.—As soon as I was able to isolate what appeared to be the specific organism I decided to test the efficacy of vaccination, for which

purpose this case, to my mind, lends itself most admirably, for here we had a distinct and visible set of progressive pathological phenomena in evidence. As this was the first case of equine actinomycosis which I had treated by vaccination the degree of dosage was largely experimental, and I had to fall back on my observations made in the treatment of nine cases in cattle of lingual, parotideal, sublingual, buccal actinomycosis. In nearly all those cases the dose was standardised by weight. In this case I decided upon a numerical count. The cultures were scraped off the surface of the media with a small spoon-shaped curette, a small portion of the medium being removed in the process. This was allowed to macerate for a few hours in distilled water, being shaken at intervals. Ten or a dozen beads were then added and vigorous shaking applied, the object being to break down the mycelia in short segments, to permit counting in the usual way, *i.e.*, against the corpuscles obtained from one's own blood. The following standard of doses was then administered every seven or nine days:—

Day.	Dosage (millions).	Local reaction.
1st	750 sterile	Small swelling disappears in 4 or 5 days.
2nd	1000 sterile	
3rd	1000 (v) attenuated	Slight swelling.
4th	2000 (s) attenuated	Same.
5th	3000 attenuated	Same, somewhat painful.
6th	500 virulent	*Considerable swell'g. hot, painful; abscess form'd
7th	750 "	*Same.
8th	1000 "	Swelling, no abscess.
9th	1500 "	Same.
10th	1750 "	Same.
11th	2000 "	Very slight swelling, no abscess.
12th	2500 "	Same.

\* In the pus from abscesses developed after injections a few Mycelia were detected under the microscope, but I was unable to obtain cultures therefrom.

On the second day after the sixth injection, in addition to the local, there was considerable general reaction. The animal was off feed, moved somewhat stiffly, and the temperature was raised two degrees. This negative phase lasted about 36 hours. After the seventh and subsequent injections no further reactive general phenomena were noticed.

*Observations.* At the outset the tenseness of the skin limited one's opportunities of inserting the hypodermic needle to those areas in which the disease had not spread and which have been previously mentioned. A fine hypodermic needle could be inserted into the diseased subcutis with much difficulty, but it was physically impossible to infiltrate even 1 c.c. of fluid, showing how intimately bound up the cutaneous and subcutaneous elements were. After the third injection the stiffness was considerably less, and the animal even attempted to trot. After the fifth injection the skin covering the ribs, shoulders, and the loins was beginning to relax, and one could discern in places slight panniculus carnosus twitchings. The hypodermic needle could now be inserted wherever one chose; the most extensively diseased areas were, from this date, selected as the seats for inoculation, and I was much struck with the fact that radiating from these inoculation centres, the diseased areas pro-



gressively disappeared, clearly proving the specific local reactive power of the antigen used. It is also interesting to note the powerful influence exerted by the virulent antigen over the almost non-virulent one when the quantum used was six of the latter to one of the former—even in a patient where by reason of the previous injections a certain degree of hyper-immunity had been reached.

I may here add that our patients, especially the larger ones, lend themselves admirably to immunisation by *active* antigens as against *sterile* antigens in many chronic diseased conditions, with few exceptions. The reason being, the reproductive processes going on in the active antigenetic elements phagocytosis becomes more forceful and prolonged.

The patient was seen by me a few days ago, she had been put to work, and the only trace of the disease was to be found in a slight corded swelling extending under a third of the trachea, and a similar swelling about four inches long immediately under the skin at the posterior border of the infra-spinatus muscle on the left side. In every other area the infiltrate had completely disappeared; the subcutis had regained its normal consistence, the skin its elasticity, and locomotion became normal.

The excellent responses obtained by auto-vaccination in this case gives encouragement for future effort along those lines, particularly in those obstinate cases where the iodine treatment has failed to give results. There are several records in human pathology of the application of vaccine therapy, but in comparative pathology it appears to have been entirely ignored. I record this case as an incentive to others to adopt its tenets and publish their results, thereby adding to our fund of knowledge in their treatment of this important disease.

\*\* I look upon those two swellings as post-fibrous deposits rather than centres of future infection, for they appear to be isolated and encased.

## Royal College of Veterinary Surgeons.

### QUARTERLY MEETING OF COUNCIL.

A Quarterly meeting of Council was held at 10 Red Lion Square, London, W.C., on Friday, 10th January.

Mr. FRANK W. GARNETT, C.B.E., J.P., President, occupied the chair, and the following were present:—Maj. J. Abson, D.S.O.; Messrs G. A. Banham, W. F. Barrett; Maj.-Gen. L. J. Blenkinsop, D.S.O.; Dr. O. C. Bradley; Lt.-Col. J. W. Brittlebank, C.M.G.; Messrs. J. H. Carter, J. C. Coleman; Prof. S. H. Gaiger; Mr. A. Lawson; Sir John M'Fadyean; Messrs. J. McKinnon, W. J. Mulvey, W. Packman, T. S. Price; Prof. J. Share-Jones; Mr. S. H. Slocock; Sir Stewart Stockman; Messrs. H. Sumner, R. C. Trigger, S. Wharam; Mr. Geo. Thatcher, Solicitor; Mr. Fred Bullock, Secretary.

*Minutes.* The minutes of the last meeting, which had been printed and circulated, were taken as read, and confirmed.

#### PRESENTATION TO MR. W. J. MULVEY.

The PRESIDENT: Gentlemen, before proceeding to the ordinary business of the Council I have a proposition to put before you, namely, that we record on our minutes

the services of one of our members—Mr. W. J. Mulvey. (Hear, hear). He has been a member of this College for a longer consecutive period than anyone in the history of the College. He was first elected in 1885, and there are very many memorable landmarks connected with his long period of office. The very year in which he was elected saw the building of our present establishment, which in itself was one of the first landmarks in our history. Then he was one of those who took a very prominent part in regard to the Charter of 1878. He was elected President in the year 1892-3, which is also another very important landmark in the history of the College, because in that year we established the four years course instead of the three years course. I have not gone through all the records, but I have not the slightest doubt that Mr. Mulvey was one of the pioneers of that, because he had been a member of the Examination Committee since 1887. He has been the Chairman of the Examination Committee with, I believe, but one single break since 1894; He has been a member of the Finance Committee since 1887, and on the death of Mr. Wragg he was unanimously elected Treasurer, a position which he still holds, and holds, as you know, to the entire satisfaction of the whole profession. (Cheers). No words of mine can convey to Mr. Mulvey the value the Council and the profession attach to his services. Every one of the letters that have been received from the members of the Council in regard to this token of appreciation to him, contain words as to the value of his services, not only to the Council, but to the profession throughout the country; and I feel sure that I am voicing, not only the opinion of the Council but of the profession generally, when I say that it is recognised by all that no one has rendered greater service to us than Mr. Mulvey. (Cheers). On your behalf I ask him to accept this small token of appreciation, and to express the hope that he may be spared to give us his valuable services and wise counsels for many years to come. (Cheers).

The President then presented to Mr. Mulvey the very handsome solid silver tea service, in the Queen Anne period, consisting of a tray, a teapot, sugar basin, and cream jug, all of which bore Mr. Mulvey's monogram, while the tray bore the following inscription:—

"Presented to W. J. MULVEY, J.P., F.R.C.V.S., by members of the Council of the Royal College of Veterinary Surgeons in appreciation of his services to the Council and profession during the period of 34 years. January 10th, 1919."

Mr. MULVEY, who was very heartily cheered on rising to respond, and who spoke under considerable emotion, said:—

Mr. President and Gentlemen,—It is very difficult for me to reply to the exceedingly eloquent words that you have used in regard to the small services that I may have been able to render to this Council and to the profession. Believe me that I appreciate them very highly. As you say, sir, I have been a member of the Council for a considerable number of years, and it has occurred to me from time to time that I ought, as has been suggested, to retire and make room for a younger man. (Loud cries of "No, no"). But I feel young yet. (Cheers). It is not always a question of how long a man has lived, if he keeps his heart young and he feels that he is able and willing to carry out the duties that he has not only taken upon himself but which have been imposed upon him. (Cheers). With me this work has always been a labour of love. From my earliest days in the profession I have loved it, and I have done all in my power to promote its best interests. (Cheers). Looking round this room I regret to say there is not a single member left with us who was here when I first entered it. When I first joined the Council our meetings were held at a house across the road, while these premises

were being rebuilt. I was here in this room at the first meeting held in it, Mr. John Roalfe Cox then being President, and that meeting was followed by a lunch in this room. That is a few years ago. From time to time, by the good will of the profession, I have been elected, and I am still here. (Hear, hear). Really, I think I have still a little more work left in me, and until I am turned out I am going to stay. (Laughter and cheers). For this very handsome present I return you my sincere and hearty thanks. Believe me, I appreciate it, and shall do in the future. (Cheers).

*Apologies for absence.* The SECRETARY announced that apologies, regretting their inability to attend the meeting, had been received from Mr. Clarkson, Mr. John Dunstan, Maj. Gofton, Mr. P. J. Howard, and Maj. John Thomson.

*Obituary.* The Secretary read the obituary list.

*Admissions to membership.* The Secretary announced that since the previous quarterly meeting the following had been admitted to membership:—

*London—*

Mr. H. W. Brekke  
I. R. R. Coleman  
L. N. Devenish  
C. P. King  
H. Thornton

*Liverpool—*

Mr. H. Salusbury  
A. Williams

*Glasgow—*

Mr. C. Macpherson

*Dublin—*

Mr. M. A. O'Connor  
J. J. O'Donovan  
M. G. West  
W. White

*Correspondence.* The SECRETARY announced that the only correspondence received was a card containing best wishes from Frederick Hobday, No. 22 Veterinary Hospital, B.E.F., Italy, Christmas, 1918.

#### FINANCE COMMITTEE.

Mr. LAWSON read the report of a meeting held on January 10th:—

The Treasurer submitted his financial statement for the quarter, showing a balance in hand of £392 15s. 4d. and liabilities amounting to £592 18s. 9d.

It was resolved: That the Treasurer's statement be approved, and that he be ordered to pay cheques for monthly salaries, petty cash, electric light, Fidelity Insurance, and subscriptions for foreign journals, required during the ensuing quarter.

The President reported that during the Secretary's illness a large amount of extra work had been imposed upon Miss Blake.

It was resolved: That a bonus of £5 be paid to Miss Blake, and that she be thanked for her extra services.

An application was received from Mr. W. A. Benham, who had been in the army since May, 1917, for re-engagement on demobilisation.

It was resolved to recommend: That Mr. Benham be informed that the Committee is prepared to re-engage him at a salary £120 per annum.

Mr. TRIGGER: I move the adoption of the report.

Mr. PRICE: I second that.

The PRESIDENT: Probably the Treasurer has something to say on the report of the Finance Committee.

Mr. MULVEY: I am afraid, sir, it is only the old tale, that the balance is on the wrong side. If it had not been for the fact that we were able to draw £200 from the deposit account I do not know how we should have got on. As you will notice, our deficit is very large this time. The number of students has been so small, and the expenses do not get any less. The only thing I can do is to entreat the members of the profession to keep up their subscriptions, and to ask those who have not already subscribed to make up their minds to do so. (Hear, hear).

The resolution of the adoption of the report was then carried unanimously.

#### REGISTRATION COMMITTEE.

The SECRETARY read the minutes of a meeting held on 9th January, from which it appeared that 15 cases were considered by the Committee. In the case of J. Akehurst, non-member, the Solicitor reported that a conviction had been obtained, and a fine of £5 and costs imposed.

Two cases were ordered to be struck out; it was resolved in one instance that there was no case; it was resolved in two cases that prosecutions should be instituted, and also in another case, subject to the Solicitor obtaining satisfactory evidence; in another case he was instructed to send a notice of warning; two cases were ordered to stand over for further enquiry; and the Solicitor reported that the prosecution instituted against H. Smith, non-member, had been dismissed. One other case was withdrawn by the complainant.

A member was charged with drunkenness on active service, and conduct to the prejudice of good order and military discipline when in His Majesty's service, and was convicted thereof at a General Court-Martial and cashiered. He appeared before the Committee, accompanied by his legal advisers. The College Solicitor put in a certified precis of the charge and conviction before the Court-Martial, and also read the evidence before the Court-Martial as contained in a certified copy of the proceedings, in which Capt. Crosbie said he had known this member for a number of years; that he had a high reputation as a veterinary surgeon, and that he had never known him to be drunk nor heard of his being drunk before the occasion in question. The sentence that he be cashiered was confirmed by Field Marshal Haig. The member gave evidence before the Committee and denied drunkenness. Dr. Blair said that the man was in bad health, suffering from palpitation. He tried to get him to go to hospital or a rest camp without success. Mr. O'Malley, Counsel, addressed the Committee on behalf of the member.

It was resolved: That the Committee find the charges proved.

*Application for Restoration.* An application was received from Mr. A. E. Webber for the restoration of his name to the Register, it having been removed by the Registrar under Section 5 Sub-section 4 of the Act. It was resolved: That the Registrar be authorised to restore the name of Mr. A. E. Webber to the Register of Veterinary Surgeons.

Mr. TRIGGER: I move the reception and adoption of the report.

Mr. MCKINNA: I second that.

Mr. LAWSON moved, Mr. PACKMAN seconded, and it was resolved: That the Seal of the College be attached to the prosecutions recommended in the report.

The PRESIDENT: There is not a quorum of members present yet, so that we must defer till a later period of the meeting the question of whether or not the names of the two members shall be erased from the Register.

#### PARLIAMENTARY AND GENERAL PURPOSES COMMITTEE.

Dr. BRADLEY read the report of a meeting held on January 9th, 1919, and moved its reception and adoption:—

*Mettam Appeal.* The sub-committee appointed to consider this matter met on December 6th, when the solicitor submitted a draft of a petition to the First Commissioner of His Majesty's Treasury, praying for the grant of a Civil List Pension to the widow of the late Professor Mettam. The draft petition was settled as amended, and the Solicitor was instructed to have prints prepared in time for the next meeting of Council.

The Solicitor submitted prints of the appeal, which had been circulated.

It was resolved to recommend the following resolution be included in the Petition.

"That in the opinion of this Council the late Professor Mettam, by the arduous devotion of his life to teaching and research in connection with Veterinary Science, rendered great service to the nation, and especially to the interests of agriculture; that owing to his death at a comparatively early age, and the inadequacy of the salary attached to the appointments which he held, his widow and family have been left in straitened circumstances; and that the Council should therefore support by every means in their power a petition to H.M. Treasury for a pension to be granted to Mrs. Mettam."

Lt. Col. BRITTLEBANK seconded the motion.

The PRESIDENT: With regard to the petition for a civil pension for Mrs. Mettam, I hope every member of Council will take as many copies as he can and get them signed by as large a number of influential people as possible in their respective districts, particularly people who have influence in Government quarters—Lord Derby, for instance, if somebody could put his signature, and the heads of Universities, and members of Parliament who are in touch with the Prime Minister. These will have a very great effect, and it is hoped that the petition which is being lodged and is being repeated by the Irish Department of Agriculture will, with this backing, be successful. We want to make the backing as strong as possible.

The motion for the adoption of the Report was then put, and carried unanimously.

*Production and Distribution of Milk.* The Secretary submitted a copy of the Third Interim Report of the Committee on the Production and Distribution of Milk, together with forms issued by the Local Government Board giving conditions for licenses for the purchase and sale of milk of special quality.

It was resolved to recommend that a Special sub-Committee be appointed, consisting of Dr. Bradley, Lt. Col. Brittlebank, Sir J. McFadyean, Mr. T. S. Price, and Mr. S. H. Slocock, to consider this question and to report to the next meeting.

*Linseed Oil.* A letter was received from the Linseed Oil Consumers Association, stating that it was not now necessary to proceed with the scheme for the distribution of Linseed Oil reported at the previous meeting of the Committee.

#### EXAMINATION COMMITTEE.

Mr. MULVEY read the reports of meetings held on 12th December, 1918, and 9th January, 1919:—

*Assistance to Veterinary Students.* The following letter was received from the Board of Agriculture:—

L5562/1918. 9th December, 1918.

Sir,—With reference to your letter of the 3rd December, I am directed by the President of the Board of Agriculture and Fisheries to enquire whether the Council of the Royal College of Veterinary Surgeons can estimate what proportion of the sum of £7,500 suggested for scholarships for students whose studies have been interrupted, would be required for scholarships to be held by such students at Colleges in England.

2 I am further to enquire whether the College can form any estimate of the number of discharged officers and men who would wish to enter the veterinary profession, but whose means are insufficient to enable to undertake the course required for qualification; and of the number of such students for whom accommodation and instruction can be provided at the existing veterinary colleges in England during the next four years. Mr. Prothero presumes that in the view of the College the demand for qualified practitioners in the veterinary profession is likely to be such that at the end of their course of training discharged officers and

men would find no difficulty in making a reasonable livelihood.—I am, Sir, your obedient Servant,

H. E. DALE.

It was resolved that a reply be sent to the following effect:—

(1.) The total number of students whose studies have been interrupted by military service is 178 of whom 82 were studying in England, 72 in Scotland, 24 in Ireland. It is recommended that the sum of £7,500 be allotted to the three countries in a proportion corresponding with these figures.

(2.) The committee is unable to estimate with any pretence to accuracy what number of discharged officers and men may wish to enter the profession, but the information of the committee is to the effect that a considerable number of applications have recently been addressed to the different veterinary schools by officers and men requesting information as to the conditions under which they can qualify as Veterinary Surgeons.

The number of such students for whom accommodation and instruction can be provided would depend upon the number of new students other than discharged officers and men. It is calculated however that accommodation could be found at the four Colleges in Great Britain for at least 100 discharged officers and men per annum during the next four years, in addition to the number of students included in paragraph 1.

So far as the Committee is able to estimate the prospects of veterinary graduates in the near future, it has no hesitation in saying the prospects are likely to be excellent. There is no doubt whatever that they will without difficulty be able to make a good livelihood.

*Resumption of Studies by Demobilised Students.* A letter 5 12/1918 from the Ministry of Labour, Appointments Department, was communicated by Prof. Gaiger, in which the question was raised as to the possibility of making arrangements whereby demobilised students should lose the minimum of time in resuming their studies.

It was resolved that the matter be deferred pending the receipt of a direct communication on the matter from the Ministry addressed to the Council.

#### APPLICATIONS FOR EXEMPTION FROM PRELIMINARY EXAMINATIONS.

J. R. POPE. A Lieutenant in the army who enlisted at 16 years of age, recently invalided after three years service. A recommendation from the Head Master of St. Paul's School was submitted.

It was resolved that Lieut. J. R. Pope be exempted from the Preliminary Educational Examination.

J. JACKSON, O.T.C. An application for exemption from completing his preliminary educational certificate.

It was resolved that the application be not acceded to.

G. A. BELL. Application, accompanied by testimonials from the Head Master of Boroughmuir School, Edinburgh, and the Rev. R. G. Strang, of the Edinburgh School.

It was resolved that Lieut. G. A. Bell's certificate be accepted as qualifying him in respect of general education to enter a veterinary college.

W. MAITLAND. Private in the army since 1914, accompanied by certificate.

It was resolved that the application be not acceded to.

N. DOBSON. Sergeant R.A.M.C. Application accompanied by testimonials.

It was resolved that Mr. Dobson be exempted from the Preliminary Educational Examination.

P. J. NEENAN. Bailiff to the Besford Court Farm Colony.

It was resolved that as the applicant has not served in one of H.M. Forces, application cannot be acceded to.

D. TELFER. Discharged soldier. Application to be allowed to take his preliminary educational examination

at any time before taking the first professional examination.

It was resolved that the application be acceded to.

Applications from the following were deferred for further information:—

C. B. F. Parkinson. J. A. Craft. H. F. Hoffmann.

#### EXEMPTIONS FROM THE FIRST PROFESSIONAL EXAMINATION.

**T. J. RICHARDSON.** Rejected in Anatomy only at Class A Examination, July 1917. Served with forces since that date.

It was resolved that Mr. T. J. Richardson be allowed to proceed to the second years course on the understanding that he will be required to take whole subject of anatomy at the Class B examination.

**T. W. M. CAMERON,** Capt. R.A.F. In army since August 1914. Application for exemption from Class A examination. Second year Medical and Science Student. Certificates in Chemistry, Nat. Philosophy, Zoology, Mathematics.

It was resolved that Mr. Cameron be informed that, under existing Bye laws his request cannot be acceded to; but an alteration of Bye law is contemplated which would render him eligible for exemption from the Class A examination.

**C. MACAULAY,** Sergeant. M. A. Glasgow. First year B. Sc. Course. No examinations taken.

It was resolved that Mr. Macaulay be exempted from the first professional examination provided he passes the qualifying examinations in the subjects required by Byelaw 62a.

*Demobilisation of Veterinary Surgeons.* A letter 5/12/1918 was received from the Board of Agriculture asking to be informed of the steps taken by the College to secure the demobilisation of Veterinary Surgeons at an early date.

It was resolved to recommend that a special Sub-Committee consisting of the Chairman of the Examination Committee and the President be appointed to deal with applications for priority of demobilisation of Veterinary Surgeons.

The following resolution was received from the Royal Counties V.M.A.:—

"That the Royal Counties Veterinary Medical Association agree that a resolution should be forwarded to the Royal College of Veterinary Surgeons urging upon them the advisability of keeping a Register of practices for sale, assistants wanting occupations and also vacancies for assistants whereby those members returning to civil life from the army may have the opportunity of being placed in suitable employment, and that a small charge be made to cover expenses."

It was resolved that the Secretary be authorised to announce in the Veterinary Press that during the period of demobilisation he will be willing to receive information from—Members of the profession who require qualified assistants. Members who desire appointments as assistants. Members who wish to dispose of, or to purchase a practice. Members requiring partners, and those seeking partnership.

9th January, 1919.

*Reports on December Examinations.* The SECRETARY submitted reports from the Chairmen of the Board of Examiners and local Secretaries on the December examinations.

The Secretary reported that the following special appointments of Examiners had been made:—

*Class A.—Biology.* Capt. B. Butler was appointed Examiner in Zoology in Dublin, and Mr. R. W. H. Row, B.Sc., in London, in place of Mr. Ainsworth Davis.

*Class B.—Histology.* Dr. P. Lamb was appointed in place of Sir W. Henry Thompson.

*Class C.—Pathology.* Dr. Bulloch was appointed in London, in place of Dr. McWeeney, who was unable to travel to London.

*Class D.—Surgery.* Mr. J. Malcolm was appointed to examine in place Major W. S. Mulvey, unable to act on account of illness.

It was resolved: That the appointments be approved. That the usual letter of thanks be addressed to those persons and institutions who have assisted in the conduct of the examinations.

Educational Certificates numbered 1722 to 1732 were submitted and approved.

Applications for exemption from Preliminary Educational Examination were received from the following ex-service officers and men, in each case accompanied by school certificates:—

1733. BRETHERTON, R., Lt. R.G.A.

1734. PEIRSON, W., Private R.A.M.C.

1735. CRAFT, J. A., Flight Cadet, qualified for Commission.

1737. LANGFORD, E. G., Sergt. R.A.V.C.

1738. McEWEN, A. D., Lt. R.F.A.

1739. PARKINSON, C. B. E., Lt. R.F.A.

1740. WELSH, W. C., Lt. R.F.A.

1743. WALPOLE, B.O.E., Lt. R.F.A. (subject to the production of a school certificate to be approved by the Secretary).

1744. ARMSTRONG, H. J., (Certificate approved *pro tanto*, 8th April, 1918).

1745. HUMPHRIES, H. D., Lt. R.A.F.

1746. WESTON, —, Coll. of Preceptors Certificates.

It was resolved: That the applications be acceded to.

*Exemption from part of A examination.* Applications were received from Lt. D. Coady and Lt. T. Treacy for exemption from the first professional examination in addition to the preliminary educational examination. Certificates were submitted as to examinations passed in Chemistry and Physics and Biology.

It was resolved: That the applications be acceded to on condition that the candidates take the whole subject of Anatomy at the second year's examination.

*Special cases.* Application was received from a Class A student rejected in Zoology at the December examination, for permission to pass to Class B, and to sit for Biology alone in July, 1919.

It was resolved: That the application be not acceded to.

An application was received from a Class B student rejected for the third time at the December examination, 1918, for permission to pass to Class C, and to take Stable Management with the Class C examination.

It was resolved: That the application be not acceded to.

An application from a Class C student, rejected for the fifth time, at the December examination, 1918, for permission to be excused the subject of Pathology at the examination in July, 1919.

It was resolved: That the application be not acceded to.

An application was received from a Class B student, who was prevented by illness from taking his examination after the completion of a session, for permission to transfer to another College and to take the Class B examination in July, 1919.

It was resolved: That the application be acceded to.

A. B. Kerr, Class B Student, failed in Anatomy, July, 1914. Applies to be allowed, after demobilisation, to proceed to Class C, subject to passing in Anatomy, Class B, before proceeding to the Class C examination.

It was resolved: That the application be acceded to.

A. Alexander, Lt. R.A.F., Class B student, now demobilised. Applies to be allowed to sit for Class B examination in July, 1919.

It was resolved : That the application be acceded to. R. E. Glover, Lt. R.F.A., Class B student, now demobilised. Similar application.

It was resolved : That the application be acceded to. R. Smith, Class B student. No military service. Now resuming studies. Similar application.

It was resolved : That the application be not acceded to.

R. O. B. Walpole, Lt. R.F.A. Medical student. Applies (a) to be allowed to sit for Class A examination in July, 1919; (b) Alternatively, to be exempt from the first year's course if successful in passing the first Medical examination.

It was resolved : That application (a) be agreed to; That (b) be agreed on the understanding that the whole subject of Anatomy be taken at the Class B examination.

#### SCHOLARSHIPS FOR VETERINARY STUDENTS.

The PRESIDENT reported that the following letter had been addressed to the Board of Agriculture.

15562/1918.

21st December, 1918.

Sir,—In further reference to your letter of the 9th instant, I am directed by the President of the Royal College of Veterinary Surgeons to lay before you the following recommendations as to the award of Scholarships to ex-service candidates who may desire to begin or resume Veterinary training, but whose means are insufficient for them to do so:—

That an Advisory Committee be appointed, to consist of: One representative of the Board of Agriculture and Fisheries; One representative of the Department of Agriculture and Technical Instruction for Ireland; One representative of the Scottish Board of Agriculture; Five members of the Council of the Royal College of Veterinary Surgeons, not connected with the Schools; and a Chairman to be nominated by the Ministry of Labour.

That the awards should be made on the recommendation of this Committee, if possible without the definite allocation of any particular sum to each of the three countries.

It is estimated that 125 ex-service officers and men, in addition to those who are already registered as Veterinary Students, could be accommodated at the five teaching schools. Assuming that 60 such students were in need of financial assistance to an average amount of £50 per annum for four years, the total sum required for Scholarships would be £12,000.—Yours faithfully,

(Signed) FRED BULLOCK, Secretary.

(H. E. Dale, Esq.,

Board of Agriculture and Fisheries).

A letter was received from the Controller General Demobilisation and Re-settlement, stating that a District Selective Committee was being established at the Headquarters Office in each District Directorate of the Appointments Department of the Ministry of Labour, with the power to set up such Boards as may be necessary for interviewing and advising Candidates and for recommending maintenance and training grants. To insure that the interests of the Veterinary Profession are adequately represented, the Council is asked to nominate eleven members of the Profession, one for each Home District, to serve on these Committees.

It was resolved to recommend : That the following be nominated to serve on the respective Committees:—

- |               |  |
|---------------|--|
| Headqtra.     |  |
| 1. Perth      | W. Brown, M.R.C.V.S.<br>Reserve—G. Howie, M.R.C.V.S. |
| 2. Edinburgh  | Dr. O. C. Bradley, M.R.C.V.S.                        |
| 3. Manchester | H. Sumner, M.R.C.V.S.                                |
| 4. Cardiff    | Dr. J. Share-Jones, F.R.C.V.S.                       |
| 5. Leeds      | J. McKinna, F.R.C.V.S.                               |

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|---------------|---|
| 6. Nottingham | C. Taylor, M.R.C.V.S.<br>Reserve—Trevor Spencer, M.R.C.V.S.             |
| 7. Birmingham | J. Malcolm, F.R.C.V.S.<br>Reserve—H. J. Dawes, F.R.C.V.S.               |
| 8. Exeter     | J. Dunstan, M.R.C.V.S.<br>Reserve—W. H. Bloye, F.R.C.V.S.               |
| 9. Cambridge  | G. A. Banham, F.R.C.V.S.  |
| 10. London    | Sir John M'Fadyean, M.R.C.V.S.  |
| 11. Dublin    | Prof. J. F. Craig, M.A., M.R.C.V.S.<br>Reserve—P. J. Howard, F.R.C.V.S. |

**Demobilisation.** The PRESIDENT reported that the Board of Agriculture were prepared to submit a claim for the immediate release of 100 Veterinary Surgeons over 41 years of age and required for urgent purposes. A list was therefore being prepared in the office of the names of Veterinary Surgeons for whose release urgent applications had been received, and in due course this would be forwarded to the Board at 72 Victoria Street, S.W.1. The President added that since this information had been supplied to him a public announcement had been made by the Army Council that Officers of the R.A.V.C. could not at present be released.

It was resolved that Sir J. M'Fadyean and Mr. S. H. Slocock be added to the Sub Committee to deal with questions of demobilisation.

**Recognition of Irish Welsh and Gaelic.** Communications were submitted from the Department of Agriculture and Technical Instruction for Ireland, and from the General Medical Council with regard to the recognition of Irish, Welsh, and Gaelic as approved modern languages for the purpose of preliminary educational certificates.

It was resolved to recommend that Paragraph VI Sub-Paragraph IV of the Minutes of the Committee on the 4th October 1917, be rescinded.

Educational Certificates Nos. 1748-1766, submitted from the Dublin College were approved.

**Appointment of Examiners.** The SECRETARY was instructed to advertise the Appointment of Examiners for one year to be made at the next meeting of Council.

An Application was received from the War Office for the recognition of the Special Army Certificate as qualifying for admission to a Veterinary College.

It was resolved that the Army Educational Certificate be recognised, subject to the Committee's approval of the optional subjects taken.

**Award of Prizes.** The SOLICITOR reported that as instructed he had communicated with the Privy Council with regard to the possibility of varying the Trusts of the Fitz Wygram, Walley, and Williams prizes, in order that the award of these prizes might be withheld during the period of the war. The Privy Council had expressed the view that it was undesirable to seek any such powers at the present time.

Major Gen. BLENKINSOP: I rise to ask who delegated to the Examination Committee the question of the demobilisation of officers? What that has to do with the Examination Committee I fail to see.

The PRESIDENT: I can explain that very easily. At the July Council the whole question of demobilisation was discussed. It arose on the question of scholarships, and has the question has developed it is eminently one for the Examination Committee far more than any other Committee that we have. It has to deal with the training of these men, both students in the colleges.

Major Gen. BLENKINSOP: I am afraid, sir, you have mistaken my question.

The PRESIDENT: Excuse me, General, I am making my explanation, if you do not mind. The question was specially delegated by this Council to the Examination Committee, and so it has continued.

Mr. MULVEY: You allude, I presume, to the statement made in the Report.

Major Gen. BLENKINSOP: I allude to qualified men who have passed examinations. I maintain they have nothing whatever to do with the Examination Committee. What was before the Council, as far as I remember, was the question of scholarships and assistance to be given to students and men who wished to come into the profession. I do not know if I am right or if I am in order, but I would like that to be verified.

The PRESIDENT: I have given my decision. Everything is quite in order with regard to what was referred to the Examination Committee on the authority of the Council last July. The report is now open to general discussion. You will see that there has been a tremendous amount of work done. It involves the granting of all the facilities we can to the men who have served in the army, not only to students but to officers who now wish to join the profession.

Mr. TRIGGER: I move the adoption of the reports.

Major ABSON I second that.

Mr. BARRETT: There is one word I would like to say with regard to the very lengthy reports that have just been read. One appreciates that the work has been very considerable and very extensive, but I hope that very great care has been shown in the excusing of these gentlemen from their various examinations. I should have thought it would have been wiser and safer perhaps to have insisted that whatever certificates a man might possess, provided they are not pass certificates, it would have been better to submit this man to some examination, as lenient as you please. I am not on the Examination Committee, nor was I here yesterday, but I understand that several of these students have been excused from the preliminary examinations, more particularly upon the advice of their headmasters and so forth. I can only hope that the Examination Committee has acted with very great care and with wise discretion, because it opens up a very big field. For many years we have been maintaining that the preliminary examinations should, if anything, be enhanced in value, and while I do not say that the Examination Committee is wrong in admitting all these men, I think it raises a very serious question. No doubt these are exceptional times, but I should have thought myself it would have been wiser, better, and safer to have said: "Whatever certificates you present to us, we will submit you to some test in order that we may ascertain at any rate that you possess the rudiments of education."

Mr. MULVEY: I may inform Mr. Barrett that the whole of the cases dealt with comprise those men who have served their country overseas, and it is in those cases only that any exemptions from preliminary examinations have been given. In every case all the particulars were investigated. They had to produce evidence of having received a liberal education. When that was so, and the Committee were satisfied that the evidence was sufficient for them, they granted exemption as set forth in the report of the Committee.

Sir JOHN M'FADYEAN: It is very easy, I think, for the profession outside this Council to acquire absolutely erroneous notions as to what is transacted here as a result of a discussion which amounts, on occasion, merely to a question and an answer, and it is in order to prevent any chance of misapprehension with regard to the matter which has just been raised that I now wish to say a few words. I do not know whether Mr. Barrett was aware, when he rose to make his remarks, that all the concessions to which he took exception applied to men who, as the Chairman of the Committee has just said, had been serving their country. Most of them, as a matter of fact, had been serving for four or three years; many of them had been wounded or invalided. Does Mr. Barrett suggest that in the case of these who were on the point of presenting themselves for a preliminary examination in 1914, and who patriot-

ically joined His Majesty's forces, that we should now if, on the evidence submitted to us, we are satisfied that the men in question had received a fairly good general education, nevertheless insist upon them passing the examination prescribed by us? We leave the profession outside to judge. I want it to be put beyond the possibility of misunderstanding that the Council is making no concession with regard to preliminary education except in the cases of men who have been arduously serving their country. (Hear, hear.)

The resolution for the adoption of the reports of the Examination Committee was then put and carried unanimously.

#### REGISTRATION COMMITTEE.

There is now a quorum present, and it is possible for us to deal with the cases that have come before the Registration Committee. First of all I will ask Mr. Bullock to read the resolution which was adopted by the Council at its October meeting.

The SECRETARY: The following is section 3 of the report of the Registration Committee on October 3rd, 1918: "Mr. G. N. Tomlinson, member of College, was summoned to appear on a charge of conduct disgraceful in a professional respect, namely, drunkenness when in H.M. Service, and that he was convicted of drunkenness by a general Court Martial, and in consequence dismissed the service. The Solicitor stated that Mr. Tomlinson had written that he did not intend to enter any defence or to attend the meeting. The Solicitor read the official record of the Court Martial held 3rd April, 1917, from which it appeared that he was charged with (1) Drunkenness, (2) Drunkenness, (3) An act to the prejudice of good order and military discipline, and pleaded guilty to (1) and (2), but not guilty to (3). The finding was not guilty to (3), and the sentence to be dismissed from H.M. Service. The Committee find the charges proved."

The PRESIDENT: That report was passed at the last Council meeting in October, and consequent on it I now move "That the name of Mr. George N. Tomlinson be removed from the register of Veterinary Surgeons."

Mr. LAWSON seconded the motion, which was then put and declared by the President to be carried.

The PRESIDENT: You have adopted the minutes of the meeting of the Registration Committee held yesterday, and consequent on that I now move: "That the name of a member in question be removed from the register of Veterinary Surgeons."

Mr. TRIGGER: I beg to second that.

The PRESIDENT: The motion is carried, 15 voting for and 2 against.

The SECRETARY: The Charter says: "It shall be lawful for any meeting of the Council, at which not less than two-thirds of the members shall be present, and with the consent of three-fourths of the members so present, but not otherwise, to remove the name of any member from the Register of Members of the College." Twenty-two members of Council are present, so that 17 must vote for the motion, otherwise it is not three-fourths of the members present.

Mr. THATCHER: The words are very clear. Three-fourths of the members present must vote in favour of the resolution.

A MEMBER: I think the vote should be taken again because there seems to be some doubt about it. I think some hands that were held up were not seen.

The PRESIDENT: I will take the vote again. Those in favour of the resolution, that the name be removed from the register of Veterinary Surgeons, please signify.

The resolution was then put, when 15 members voted for and 4 against.

The PRESIDENT: The resolution is not carried.



Prof. GAIGER : Are we to take this vote without any discussion on the matter? Some of the members here to-day were not present at the meeting of the Registration Committee, and did not hear the case at all.

The PRESIDENT : That is their fault ; we cannot drag them here.

Prof. GAIGER : I do not see how they can vote if they were not present at the meeting of the Registration Committee.

The SOLICITOR : If you will look at the Act you will see that the Council proceeds upon the report of the Committee, and that report has been presented.

Prof. GAIGER : But the report did not suggest that his name should be taken off : it merely reported that they found the charges proved.

The SOLICITOR : They have no power to do so.

The PRESIDENT : The Committee cannot do that. It is only the Council that can do that. The Committee found the charges proved.

I have now to move that the name of Mr. A. E. Webber be restored to the register of Veterinary Surgeons.

Mr. McKINNA seconded the motion, which was carried.

Sir JOHN M'FADYEAN : May I add a word about the report of the Registration Committee before we proceed to the next business? I should like to call the attention of the Council to the enormous importance as a precedent of what has just happened. The name of one member convicted of conduct disgraceful in a professional respect has been struck off the roll, and the name of another member convicted of what, on the face of it, was a more severe crime, has not been struck off. I do not know what the other members of the Council may feel, but my feeling now is that the Council has ceased to recognise drunkenness on duty as a crime, and that we can never in future strike members off the roll for that offence. I do not want to review the case, but I think the gravity of what has just happened ought to be pointed out.

Major-General BLENKINSOP : With regard to what Sir John M'Fadyean has just said, I would like to make this explanation with regard to the two cases which are before you.

The PRESIDENT : I do not think you can go into that. If you like to say something about the action of the Council, well and good.

Major-General BLENKINSOP : It is in connection with the action that has taken place at this meeting that I desire to make a few remarks. Sir John M'Fadyean has been allowed to make a statement on the very point on which I wish to make a statement. If there is any difference between us, and if you will not allow me to make a statement, I will sit down.

The PRESIDENT : Yes, I will allow you to make a statement on that point, on the action of the Council, but not to review the case.

Major-General BLENKINSOP : I was not reviewing the case. The whole point is this. In these two cases you have one that is a very serious case—

Mr. BARRETT : I rise to a point of order. I submit that the whole of this discussion is irregular and ought not to be permitted.

Sir STEWART STOCKMAN : I think I am in order in moving that the names of the voters one way or the other be recorded.

Mr. TRIGGER : I second that.

Dr. SHARE-JONES : I suggest that that cannot be done.

The PRESIDENT : I think this is irregular. I decide in favour of Mr. Barrett's point of order, and accordingly we will proceed to the next business.

#### ANNUAL FEE COMMITTEE.

Sir JOHN M'FADYEAN read the following reports of the Annual Fee Committee, held on December 5th, 1918, and the 9th of January, 1919.

December 5th, 1918.

It was resolved that Sir J. M'Fadyean be appointed Chairman of the Committee for the ensuing year.

*V.S. Act Amendment Bill.* The Amendment Bill was considered and the following alterations were approved :—

The fourth clause of the preamble to stand first.

Section 2 to be renumbered 3 and Section 3 to be renumbered to 2.

Clauses (1) and (2) of Section 3 to be altered to read as follows :—

3(1). An annual fee of one guinea shall be payable on the first day of April in each year or such other date as the Council may from time to time determine by every member of the Royal College of Veterinary Surgeons save as excepted in Sub-section (4) hereof, such fee to be paid to the Registrar of the Royal College of Veterinary Surgeons on or before the thirtieth day of April in each year, or such other date as the Council may from time to time determine. The Registrar shall cause a copy of the Register of Veterinary Surgeons to be posted to each member whose name and address appear in such Register free of all cost.

(2). If the annual fee of any member shall not have been paid on or before the thirtieth day of April in any year or such other date as may have been fixed by the Council as aforesaid, the Registrar shall send to such member by post at the address given in the Register of Veterinary Surgeons for the time being, or to any other address of which written notice shall have been given by such member to the Registrar, a notice requiring payment, and if such payment shall not be made within one month from posting such notice a final notice shall be sent to such member by registered post.

*Memorandum.* The following memorandum to be prefixed to the Bill was approved.

#### VETERINARY SURGEONS ACT (1881) AMENDMENT BILL MEMORANDUM.

This Bill, which was introduced in 1911, 1912, 1913, 1914, and 1915, is for the purpose of empowering the Royal College of Veterinary Surgeons to impose a fee of £1 1 0 on all members of the College (with certain exceptions).

The present income of the College is not sufficient to enable it to carry out the duties imposed upon it by the Veterinary Surgeons Act (1881) and its various Charters.

Since the outbreak of the war subscriptions of a guinea a year have been paid voluntarily by a large number of members in order to enable the College to carry on its work until such time as the Bill can be passed into law. At the present time over 1100 members out of 3300 on the Register are thus voluntarily subscribing to the funds of the College.

The measure is necessary in order to place the College on a satisfactory financial basis and to enable it to meet the new demands which will be made on it during the period of reconstruction.

The Bill has been submitted to, and approved by, the Privy Council, and is supported by the general body of the profession.

In the recent Report of the Departmental Committee on the Public Veterinary Services [Cd. 6575, (1913)] the following statement is made :—

"The lack of funds seriously hampers the work of the college. With a view to improve its financial position the College is seeking power in a Bill now before Parliament to charge an annual fee of one guinea on each of its members and fellows. This Bill we understand has the support of the great majority of the profession, but so far little progress has been made with its consideration. We are of opinion that the College is performing work of great national importance, and

that its efforts to maintain a high standard of veterinary education in this country are worthy of every encouragement."

Section 4 is desired for the purpose of putting a stop to quackery by Companies registered under the Companies' Acts and who cannot now be punished. Section 19 of the Interpretation Act 1889 which is to the same effect as the Clause asked for is not retrospective.

It was resolved that the Bill as amended be approved and submitted to Privy Council.

That every endeavour be made to have the Bill introduced in the new Session of Parliament as a Government measure.

*Amendment Bill.* Copies of the Bill as revised at the previous meeting were submitted, and it was resolved

That the last Clause of Paragraph 2 (1) be altered to read as follows—"On receipt of such fee the Registrar shall cause to be posted to the member paying the same a copy of the Register of Veterinary Surgeons free of all cost."

The SOLICITOR reported that he had received the formal approval of the Privy Council to the Bill in its present form.

It was resolved that the Chairman be authorised to take such action as may appear to him necessary in order to secure the adoption of the Bill as a government measure.

That a special Sub-Committee be appointed, consisting of Sir John M'Fadyean, Sir Stewart Stockman, Mr. W. F. Barrett, Mr. T. S. Price, Mr. S. Slocock, with executive powers to deal with any matter arising during the progress of the Bill through Parliament.

Sir JOHN M'FADYEAN: I move that the two reports be received and adopted.

Major ABSON seconded the motion, which was carried unanimously.

#### HONOURS AND PRIZES COMMITTEE.

Mr. BANHAM read the following report of a meeting of the Honours and Prizes Committee, held on January 9th, 1919.

*Williams Memorial Prize.* The report of the Auditors was submitted showing Mr. C. A. Ewing of the Royal Veterinary College of Ireland, Dublin, secured the highest number of marks, namely 126, in Class D Examinations in 1918.

It was resolved to recommend that the Williams Memorial Prize for 1918 be awarded to Mr. C. A. Ewing.

*Walley Memorial Prize.* The report of the Auditors was received showing that Mr. W. G. Jones, and Mr. C. P. Neser, of the Royal Veterinary College of Ireland, Dublin, were bracketed first, with the highest number of marks, 113, in the Written Examinations in Pathology, Materia Medica and Hygiene, in December 1917 and July 1918.

It was resolved that the Walley Memorial Prize for 1918 be divided equally between Mr. W. G. Jones, and Mr. C. P. Neser.

On the motion of Mr. Banham, seconded by Mr. Packman, the report was received and adopted.

#### PUBLICATION, LIBRARY, AND MUSEUM COMMITTEE.

Mr. SHARE-JONES read the following report of a meeting held on 10th January:—

*Presentations to Library.* The Secretary reported that since the previous quarterly meeting the following presentations had been made to the Library.

Bulletin of the Institute for Infectious Diseases of Animals, Japan, No. 1, 1913. Über das Askaron, einen toxischen Bestandteil der Helminthen besonders der Askariden und seine biologische Wirkung (mittellung I, T. Shimamura u. H. Fujii, July, 1917. On the Toxic Constituents in the bark of Robinia pseudacacia L., Report 1., B. Tasaki and U. Tanaka, May, 1918. Über

die Serodiagnose der Schwangerschaft bei Pferden und Kühen, mittelst des Abderhalden'schen Dialysierfahrens T. Shimamura u. S. Matsuba, June, 1917. Über die proagglutinoidähnliche Reaktion durch Haemoglobinlösung, von K. Tagawa, May, 1918. Über die Bedeutung des Salzes bei der Agglutination, von K. Tagawa, May, 1918. Weiters Studien über die Bedeutung des Salzes bei der Agglutination und ihre Anwendung zur Serodiagnostik des Rotzes von K. Tagawa, May, 1918 (The last six reprints from the Journal of the College of Agriculture, Imperial University of Tokyo).

Delabere Pritchett Blaine, Outlines of the Veterinary Art; 2 vols, 1802 (first edition), presented by the Secretary.

First 10 vols. of *Journal of Comparative Pathology and Therapeutics*, presented by S. Beeson.

*Annual Reports:* C.V.D., Bihar and Orissa, 1917-18; C.V.D., Madras, 1917-18; V. Dept., Rangoon, 1917-18; Vet. Director General of Canada, 1916-17; C.V.O. Board Agriculture and Fisheries, 1917; New York State V. College, 1916-17; Lister Institute of Preventive Medicine.

*Calendars:* University of Edinburgh, 1918-19; University of Liverpool, 1918-19; Royal Coll. of Surgeons of England, 1918; Ontario V. College, 1918-19; Indiana V. College, 1918-19.

*Periodicals:* The Journal of the Board of Agriculture and Fisheries; The Scottish Journal of Agriculture; The Journal of Comp. Path. and Therapeutics; Revue de Pathologie Comparée; Journal of Physiology (per Sir F. Smith); The Vet. Review; The Vet. Journal; The Vet. Record; The Vet. News; The Rhodesia Agric. Journal; New Zealand Journal of Agric.; Journal of Department of Agric., Melbourne, Australia; Bloodstock Breeders' Review; British Medical Journal (per Dr. Bradley); Medical Journal of Australia; Educational Times; N.Y. University Veterinary Bulletin; N.Y. State Vet. College Alumni News.

It was resolved: That a vote of thanks be accorded to the respective donors.

*Register, 1919.* The Secretary was empowered to approve the form of advertisements for the new edition of the Register.

Dr. SHARE-JONES: One very interesting presentation is Delabere Pritchett Blaine's "Outlines of the Veterinary Art." Our Secretary evidently has been ferreting around, and has succeeded in discovering two volumes of the original edition of this work which was published in 1802, and he has presented the two volumes to the Library. I move that the Report be received and adopted.

Mr. MCKINNA seconded the motion, which was carried unanimously.

#### SPECIAL MEETING OF COUNCIL.

Immediately following the quarterly meeting, a Special Meeting of Council was held at which the President, Mr. F. W. Garnett, took the chair, and the same members were present as at the quarterly meeting.

*Minutes.* The minutes of the previous meeting, which had been printed and circulated, were taken as read and confirmed.

#### ADDITION TO BYE-LAW 61.

The PRESIDENT: I beg to move "that the following addition be made to Bye-law 61.—After the first clause to add the words: "together with a copy of his birth certificate."

Major ABSON seconded the motion, which was carried unanimously.

#### ADDITIONAL BYE-LAW.

The PRESIDENT: I beg to move the adoption of the following additional bye-law to precede Bye-law 61:—

"In any special circumstances arising in connection with the war, exemptions or other concessions may be granted by the Council on the recommendation of the Examination Committee to any person who has served in His Majesty's Forces since the 3rd day of August, 1914."

Mr. LAWSON seconded the motion, which was carried unanimously.

#### ALTERATION TO BYE-LAW 63.

Prof. GAIGER: I beg to move the following alteration to Bye-law 63:—Paragraph *a* to read:—"Pathology. A course of not less than 80 lectures on the pathology, bacteriology and protozoology of the domesticated animals." Paragraph *b* to read:—"Practical pathology. A practical course extending to not less than 40 hours' instruction on the pathology, bacteriology and protozoology of the domesticated animals." The object of that is merely to bring the wording more up to date.

Mr. BANHAM: I second that.

Sir JOHN M'FADYEAN: I should be glad if Prof. Gaiger will explain to those of us who are asked to support him—what is the real motive for effecting this alteration?

Prof. GAIGER: The real motive occurred to me before I saw that any alteration had been made to a similar purport in another part of the register. That had already been altered under the heading of Examinations, Examination C. You will there notice exactly the wording that I have given here, although it had previously occurred to me that this would be very much better than the antiquated words of "morbid anatomy," which is practically a repetition of "pathology." The old wording is a repetition, the two words meaning practically the same thing.

The PRESIDENT: The old wording is "morbid anatomy and pathology: a course of not less than 80 hours lectures on the morbid anatomy and pathology (including bacteriology and protozoology) of the domesticated animals."

Prof. GAIGER: The alteration has already been made on page 78 of the Register at a previous Council meeting, and I take it that the intention was the same as mine, to make the wording more accurate.

Sir JOHN M'FADYEAN: But I am not prepared to admit that it is more accurate. My contention is that pathology covers bacteriology and protozoology, and that this is not superior to the original term, morbid anatomy and morbid pathology, and that there is an actual danger in amplifying and extending the word "pathology" as if bacteriology were not pathology. It is perfectly clear that it is only the effects of bacteria in inducing disease that the examiners are entitled to ask any questions about in connection with the examination in Class C, that is to say, it is only the pathological effects of bacteria, and similarly with regard to protozoa. One practical effect that is likely to follow, I am afraid, is that we shall have one of the examiners devoting himself entirely to questions of bacteriology and protozoology, and this may lead to students being expected to have a knowledge of bacteriology and protozoology that is not quite reasonable. I personally should like it simply left as "pathology," but I do not think the matter is of great importance, and I do not think the reason assigned by Prof. Gaiger is a good one for altering it. Besides, I may point out to him that he has introduced the word "bacteriology" himself.

Prof. GAIGER: Where do you mean?

Sir JOHN M'FADYEAN: Does this mean that there is to be a special course in bacteriology by a special teacher?

Prof. GAIGER: As it stands at present, they are being examined in one thing, and another thing is laid down in the bye-law. In Bye-law 63 a certain thing is laid down, and on page 78 they are being examined in another thing, according to what you have just stated.

Sir STEWART STOCKMAN: I think that is so, but is not the proper course to adopt to change back to the other thing? I feel exactly what Sir M'Fadyean has expressed, that when you talk of protozoology and bacteriology it is quite a misnomer in medicine unless you are talking of pathology, or the bearing of these on pathology. It would be quite ridiculous to expect our students, or to assume that our students, can be taught protozoology or bacteriology in the time. What they are taught is medical or veterinary bacteriology, or veterinary protozoology in relation to pathology. It is really pathology they are taught. I do not think there is any great difference of opinion between us, but I think what Prof. Gaiger means is the pathology of protozoal diseases and the pathology of bacteriological diseases. Am I right?

Sir JOHN M'FADYEAN: That is not quite correct. I find that in Bye-law 63, which it is sought to amend, the words are different, and I should raise no objection to them. But in Bye-law 63 the only subjects mentioned are morbid anatomy and pathology, and then in parenthesis or brackets "including bacteriology and protozoology," specifying that those parts of pathology are not to be omitted.

Prof. GAIGER: Surely pathology includes morbid anatomy! Why use the words "morbid anatomy" at all?

Sir JOHN M'FADYEAN: I ask another question in reply to that: Why introduce the word "bacteriology" and take it out of the brackets?

Mr. SUMNER: May we know why the subject is referred to in different terms in the curriculum from what it is in the examination?

The PRESIDENT: It should be the same in both cases.

Dr. SHARE JONES: Looking at it from the point of view of an outsider, I may say there was a time when pathology was regarded as being a term which included the whole lot, and there was one chair which covered all the subjects. But as these subjects have developed, we find that chairs in bacteriology alone have been instituted, and latterly, within our time, chairs of protozoology alone have been instituted. So that there is something to be said for the attitude which Prof. Gaiger has taken up.

The PRESIDENT: I will now put it to the vote.

Sir STEWART STOCKMAN: If we vote against it, we cannot modify it as set out in the notice of motion?

The PRESIDENT: No.

Mr. MCKINNA: This is really a matter for the experts. I think they should make up their minds what they want, and then the Council will agree with them.

Prof. Gaiger's motion was then put and lost, 6 voting for and 8 against.

#### ALTERATION TO BYE-LAW 62A.

The PRESIDENT: The next item on the agenda is an alteration to Bye-law 62A, which will be moved by Mr. MULVEY. This bye-law has taken a great deal of drafting. It has been discussed by the Council on two or three occasions. We have had legal advice and done everything we can to try to incorporate our meaning into it.

Mr. MULVEY: I beg to move that Bye-law 62a be altered to read as follows:—"(1) A student who has obtained a degree in Arts, Science or Medicine, or a degree or diploma in Agriculture granted by a University situate within the United Kingdom, or by any other body whose degree or diploma in Agriculture is approved for the time being by the Council on the recommendation of the Examination Committee, or the diploma of Licentiate of one of the Royal Colleges of Surgeons, or of one of the Royal Colleges of Physicians, and who in procuring any such degree or diploma passed an examination in Chemistry and also in Biology,

Zoology or Botany, shall be exempted from his A or first professional examination, and the bye-laws and regulations in respect thereof, and shall be entitled in all respects to the rights and privileges which the passing of such examination ordinarily confers, provided always that such student so exempted shall be examined in the whole subject of Anatomy in the Class B examination. (2) A student possessing a degree or diploma of a like import or denomination to one of those enumerated in paragraph (i) hereof, but granted by a University or other examining or licensing authority other than those mentioned in paragraph (i) shall, if the Council declare its sufficiency for exemption, thereupon become entitled in all respects to such exemptions, rights and privileges as are defined in paragraph (i) of this bye-law."

Lieut.-Col. BRITTLEBANK: I second that.

Dr. SHARE-JONES: I have an amendment here which I have drafted, but gather from your ruling on the last occasion that you will not accept an amendment?

The PRESIDENT: I am afraid I cannot.

Dr. SHARE-JONES: Then I intend to vote against the resolution. I am very sorry, after the pleasant ceremony which has occurred this afternoon, but I shall have to vote against the Chairman of the Examination Committee.

Mr. MULVEY: Don't mention it. (Laughter).

Dr. SHARE-JONES: You will understand that I am voting against the motion, and not against him. (Hear, hear). We are up against a serious proposition this time, whatever the previous one may have been. There is no one round this table keener than Mr. Mulvey for a high standard of education. He has stood by it all along, and I cannot, for myself, come to any other conclusion than that he has drafted this most comprehensive regulation, quite the most comprehensive that I have ever seen in any set of regulations anywhere, without informing himself sufficiently as to the standard of education required in the various qualifications laid down here. There are qualifications mentioned here which are undoubtedly excellent qualifications, but there are others of a very low standard indeed. There are others, again, which I will defy anybody to define the standard of at all. I think Mr. Mulvey has attacked this very difficult problem in the wrong way altogether. What he should have done was this: he should have classified these various qualifications, and given us two or three sub-clauses. For instance, there is the question of preliminary education which Mr. Mulvey, above everyone, is keen about. Surely there is one type of qualification he should have dealt with at once, and that is the question of the degree. He should have said that he would have given exemption to a candidate for a degree who had passed in certain requisite subjects in the examination for that degree, and that would mean that we should know and be sure that the man had passed a matriculation examination. There is no question about it that that man would have had a higher standard of preliminary education than we demand, and that value would be carried by the certificate of matriculation itself.

Then there is another thing. We grant exemption to candidates—and I am very pleased we do—on the ground that they have a certain knowledge in certain subjects which we require a man to know. That refers to the subjects of the first year—chemistry, elementary physics, botany, zoology, and junior anatomy. And yet we have the astonishing feature of this regulation that it is proposed to grant exemption to candidates who may not have done anything at botany and at physics. I think it grossly unfair to the men who take the four subjects—to grant exemption to any candidate who takes only two. Under these circumstances I have no other option but to vote absolutely against the motion.

Mr. MULVEY: Then you will vote absolutely against what you said you would support at the last meeting.

Dr. SHARE-JONES: Not at all. It has never been put to the vote.

Mr. MULVEY: I am perfectly aware of that; but you and I talked this over at the last meeting, and you saw this at the last meeting.

Mr. SHARE-JONES: I saw it, but it has never been before us to vote upon it.

Mr. MULVEY: All right, never mind. (Laughter). I contend that your statement is not correct. First of all, it is for students who have obtained a degree in arts, science or medicine, or a degree or diploma in agriculture. You stated just now that there was nothing shown here, or there was no evidence given that a degree had been obtained.

Mr. SHARE-JONES: But you are compelling a student to go on to his degree before you give him exemption. You will not exempt a good student when he has passed in the subjects, and I claim that you are driving that student out of the profession rather than encouraging him to come in. That is what you are doing. A student starts on a degree that takes six years to get: he takes these subjects that we require in the first year; he will never touch them again, and, according to your regulation, you will not exempt that man until five years after he has passed. Is that encouraging him to come in?

Mr. MULVEY: I do not agree with you in your interpretation of the wording of the clause.

Mr. SHARE-JONES: We might go so far, speaking in jest, but I took the way in which it was put by yourself as distinctly personal.

The PRESIDENT: He must obtain a degree.

Mr. SHARE-JONES: Yes, he must obtain his degree.

The PRESIDENT: May I clear up the point that is at issue? Dr. Share-Jones maintains that a man who has passed his first examination in arts, science, medicine or the diploma or degree of agriculture by a university should be granted the same exemption by this Council for his first examination. On the other hand, Mr. Mulvey says that he must have proceeded to his degree before he can be granted exemption, and that is what this body has always carried out up to the present time.

Mr. SUMNER: This matter was put before us some years ago.

Dr. SHARE-JONES: With regard to the point that has been raised, a man with a degree might not have taken any physics, and he might not have taken any zoology, and still you exempt him. You push the man who has taken chemistry, physics, botany and zoology up to the degree standard, and the only standard which he will be required to attain, and if you pursue that, is five years' further study.

Mr. BARRETT: You are wrong.

Dr. SHARE-JONES: I should like, if I may, to read the amendment I intended to propose, but which the President rules is impossible: "That candidates who have passed in chemistry and physics, together with biology or botany and zoology, at one of the examinations for a degree in a British university shall be exempt from the courses of study in these subjects and from the A examination, but such candidates shall be required to present themselves in the whole of anatomy at the Class B examination." It was my intention to move that, but I cannot do so. That is what I would like to substitute for this clause.

Sir JOHN McFAYDEAN: I would like to recall to the Council what I believe was the original motive which led to the framing of bye-law 62a. It was that an attempt should be made to induce as large a number as possible of university graduates, particularly those who held degrees in science, to become members of the Royal College of Veterinary Surgeons. I think I am right in saying that.

Dr. SHARE-JONES: And you were recommended also by that same Committee to deal with men who had attained an intermediate stage.

Sir JOHN M'FADYEAN: Recommended by whom?

Dr. SHARE-JONES: By that Committee whose report led up to this.

Sir JOHN M'FADYEAN: Nothing of the kind.

Dr. SHARE-JONES: It arose directly out of that Committee's report.

Sir JOHN M'FADYEAN: No, indeed it did not. I can only say I have no recollection of it.

Dr. SHARE-JONES: I have.

Sir JOHN M'FADYEAN: At any rate, that was the reason. Somebody may have suggested—I think very likely if you were on the Committee you may have suggested—an entirely different question. I do not know, but I should think probably the view that you are now putting forward is one that you have held consistently all along.

Dr. SHARE-JONES: Yes.

Sir JOHN M'FADYEAN: But I hold it to be an absolutely separate point of view. It is that the students who are studying arts, or science, or medicine, but have not qualified in anything at all, are to be granted exemption by us in particular subjects because they have passed these examinations.

Dr. SHARE-JONES: In those subjects.

Sir JOHN M'FADYEAN: In those subjects, but have not qualified.

Dr. SHARE-JONES: In those subjects they are qualified.

Sir JOHN M'FADYEAN: They are not qualified in the sense in which we are using the word.

Dr. SHARE-JONES: They will never qualify any further in those subjects.

Sir JOHN M'FADYEAN: I decline to be drawn into a quibble of that sort, because it is absolutely a quibble.

Dr. SHARE-JONES: It is not.

Sir JOHN M'FADYEAN: You are using the word "qualification" in one sense, and I am using it in the ordinary sense, the sense in which we say a student is qualified here, that is to say he has taken the diploma of the Royal College of Veterinary Surgeons. Perhaps a good deal could be said for deciding in favour of the view put forward by Dr. Share-Jones, but I hold it is a perfectly distinct issue, and I think Dr. Share-Jones quite wrong in supposing that all the arguments with regard to that are on his side. I do not admit it. But the question here is, what concession shall be made to those who have taken a degree or diploma, and not what concession is to be made to those who are only in the position of students. I should like to deal especially with one of the points made by Dr. Share-Jones. He asks us to believe that if a student—a medical student for instance, has passed in the subjects of chemistry, physics and biology, that he is as much entitled to a concession from us with regard to those subjects as if he had proceeded with his studies and qualified in medicine. I dispute that altogether. There is no comparison at all between a fully qualified medical man and a man who has only passed his first professional examination in medicine. I merely mention that to show that the two cases are not really absolutely parallel—that one might support the one and refuse to support the other. I do not want to occupy the time of the Council, but I should like to ask Dr. Share-Jones to specify to us what are the diplomas or degrees referred to in this amendment of the bye-law that he places in such an exceedingly low category.

Dr. SHARE-JONES: In regard to that point I must decline to do what you ask, but I have a letter in my pocket, which is confidential to me, where there is no preliminary examination at all asked for.

Sir JOHN M'FADYEAN: A University.

Dr. SHARE-JONES: Yes; a University.

Sir JOHN M'FADYEAN: The remedy for that is that Dr. Share-Jones should bring the facts to the knowledge of the Council, and we will, I venture to say, amend the bye-law again so as to exclude that particular University diploma.

Dr. SHARE-JONES: I suggest that that should go down lower in this regulation, which would entitle the Committee to do what you say.

Sir JOHN M'FADYEAN: That, I thought, was what you meant. What Dr. Share-Jones meant, apparently, was that we might have an application with regard to certain diplomas.

Dr. SHARE-JONES: Exactly.

Sir JOHN M'FADYEAN: Which he holds are of a low category; but I call your attention to the fact that, except in the case of University qualifications, the bye-law is only permissive. The Committee has to approve of them.

Dr. SHARE-JONES: If you put diplomas down a little lower, among the permissive set, you are perfectly safe, and you could then deal with any one that came up, but a diploma and a degree are different things altogether.

Sir JOHN M'FADYEAN: My point is this, that we are not really in any danger of accepting any of these qualifications of such a disgracefully low character, because they have each to be examined, and the decision will be on its merits. No doubt the Committee will enquire into the subject and find out what is really the case. I do not hold any very strong views on the subject, because I do not think we are ever likely to induce or exclude graduates in science by this alteration. In my opinion the Council will do no harm in passing it.

Dr. SHARE-JONES: Even if a man has not taken two out of the four subjects.

Sir STEWART STOCKMAN: You have mentioned something about a Committee. I take it you meant the Committee on the Veterinary Services?

Dr. SHARE-JONES: I did.

Sir STEWART STOCKMAN: I have had a great deal to do with that in the way of carrying into effect the recommendations made by it, and I assure you that what you stated was quite incorrect. What the Committee said was this—

Dr. SHARE-JONES: I challenge you yourself—Will you put those Minutes on this table to discuss at the next meeting?

Sir STEWART STOCKMAN: We will get the Report, if you like, but at present I am entitled to say that the recommendation was that they should have scholarships to offer to distinguished graduates in science, and graduates in other suitable degrees, to encourage them, particularly honours graduates, to enter the veterinary profession after they have qualified at the university, and, *vice versa*, that there should be scholarships for men who had qualified at the veterinary schools to take degrees in science. That was the recommendation.

Dr. SHARE-JONES: That was one. But was there not a further one?

Mr. BARRETT: There is no doubt that when this question came before the Examination Committee it decided, after careful deliberation, that the students should take a degree before having any of these exemptions granted to them. There can be no harm, therefore, in our passing this bye-law to-day. But I must say I am forcibly struck with Dr. Share Jones's contention, namely, that a student who has passed, say, at the London University, the preliminary scientific examination, who may have equipped himself thoroughly in chemistry, botany, zoology, or any of these subjects, should be entitled to exemption by us and be admitted a student by the Royal College of Veterinary Surgeons. If that were agreed by the Council, we could easily pass this bye-law to-day, and then within a period

of three or six months Dr. Share Jones could draft an amending bye-law which the Council might be inclined to accept.

Mr. BANHAM: May I ask, if a gentleman took his Bachelor of Arts in anything but science, would you be prepared to let him go on to the second year's course?

Mr. BARRETT: He gets exemption provided he has passed in those subjects.

The PRESIDENT: I think it would have prevented all this discussion if I had pointed out that this only applies to exemptions that we propose to give to holders of a degree. Dr. Share-Jones is quite at liberty to bring forward any other resolution as an addition to it.

The resolution was then put and carried, one member, Dr. Share-Jones, voting against.

#### CONFIRMATORY MEETING.

It was unanimously agreed that the confirmatory meeting should be held on Friday, the 24th January, at 4 o'clock.

*Vote of thanks to the President.* On the motion of Mr. Packman, seconded by Mr. Barrett, a very hearty vote of thanks was accorded to the President for his conduct in the chair, which the President briefly acknowledged, and the meeting terminated.

#### CENTRAL VETERINARY SOCIETY.

We are specially requested to intimate that on Thursday February 6th, after the monthly meeting of the Society, a dinner will be held at The Holborn Restaurant, Duke's Room, at 7 p.m. Members of the profession on military service wishing to attend will be cordially welcomed.

Tickets 7/6 exclusive of wines.

Those intending to be present should intimate the fact to the Hon. Sec. Mr. Hugh A. MacCormack, 122 St. George's Avenue, Tufnell Park, N. 7, not later than January 31st, in order that adequate arrangements may be made.

#### ARMY VETERINARY SERVICE

##### ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following appointments to the Most Excellent Order of the British Empire, for valuable services rendered in connexion with military operations in various Fields (Dated Jan. 1, 1919):—

##### MEMBERS (Civil Division).

\* \* \* \* \*  
John Ewing Johnston, Esq., Veterinary Officer in Charge, Remount Depot, Belfast.

##### THE MILITARY CROSS.

War Office, Jan. 11.

The King has been pleased to approve of the award of the Military Cross to the following in recognition of his gallantry and devotion to duty in the Field:—

Capt. L. E. L. TAYLOR, 3rd Mob. Vet. Sec., Can. A.V.C.—

During an attack he at great personal risk from shell fire superintended the removal of all sick and wounded animals from the lines of his section to a more protected area. He was wounded while doing so, still he remained on duty, repeating his endeavours to scatter his animals so as to lessen the risk of casualties. The result was that no casualties occurred within his unit, though a number of men and animals were killed and wounded in close proximity. A great deal of first-aid work was accomplished by him in the forward areas.

#### Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Jan. 11.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Capt. to be actg. Maj.:—R. W. Mellard, D.S.O. (Nov. 20, 1918).

Jan. 13.

Capt. R. M. Bamford is secd. for duty with Egyptian Army (Oct. 27, 1918).

Jan. 16.

Temp. Capt. N. B. Green resigns his commn. (Jan. 17), and retains the rank of Capt.

#### SPECIAL RESERVE OF OFFICERS.

Jan. 14.

Capt. C. R. Roche to take rank and prec. in his Corps and in the Army as if his appt. as Capt. bore date July 17, 1916.

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Jan. 15.

Maj. C. H. Golledge is retired, having attained the age limit (Jan. 16), and retains the rank of Maj., with permission to wear the prescribed uniform.

#### COCCIDIOSIS IN THE RABBIT.

*To the Editor of the "Veterinary Record."*

Sir,—My attention has been directed to a letter appearing in your issue of Jan. 11th from Sir John M'Fadyean criticising my communication to the Central Veterinary Society on "Coccidiosis in the Rabbit." In view of the tone of that letter, I absolutely refuse to be drawn into any discussion on the subject in the press, at the direction of the writer. The agenda of the meeting in question was published, and since Sir John was so keenly interested in the subject and held such pronounced views thereon, it is a matter for regret by the whole of the profession that he was prevented from attending and making those views public in the proper manner. Discussions are welcomed at such meetings as that at which the paper was read, especially from such authorities as Sir John, and one regrets that the members were deprived of such an intellectual feast. Sir John has at any rate the satisfaction of knowing that his timely intervention will save the reputation of British veterinary research, and will prevent readers abroad inferring that "the study of coccidiosis of the rabbit has been sadly neglected in this country." I have no intention whatever of entering into what must necessarily be a lengthy controversy in order that Sir John may have an opportunity of making his views known by other than the usual channels of publication. I make Sir John a present of any satisfaction which he may obtain from my refusal to discuss the matter further at present and under these conditions. I absolutely refuse to have any line of action dictated to me by Sir John, and I can only regard the courses which he suggests as open to me, and his self-appointed representation of the Central Society, as unwarrantable presumption.

One awaits with impatience the publication of the results of Sir John's researches with regard to the disease in question.—Yours faithfully,

J. B. BUXTON.

Hognose,

Wrotham, Kent, Jan. 14, 1919.

#### THE COUNCIL OF THE R.C.V.S.

Sir,—One remark in the letter of "Reform," in your issue of January 4th, may lead to misunderstanding unless immediately corrected. He quotes the published results of the Final Examination of students from



London, Liverpool, Glasgow, and Dublin (omitting all reference to the other three classes), and says:—"I understand that examiners had to travel to these places of decentralisation. Why? The only answer I can give is: the Schools decide these things."

The fact is, the decision as to where the examinations are to be held is not in the hands of the schools. Indeed, whenever they have been asked to do so in recent years, the schools have arranged to send their students to any centre where an examination was being held, thus saving considerable expense to the R.C.V.S.

Neither is it in the power of the Council altogether to decide as to the number of centres of examination. The matter is settled by the Veterinary Surgeons Act, 1881. Section 4 reads:—"The R.C.V.S. shall be bound to make provision, in the manner permitted by their Charters, for the examination in England . . . and in Scotland . . . and in Ireland . . ." etc.

It is thus obvious that the R.C.V.S. is compelled by law to arrange for at least three centres of examination.

Yours faithfully,

FRANK W. GARNETT, President.

R.C.V.S.,

10 Red Lion Sq., W.C., Jan. 13, 1919.

Sir,—To be contributions of any value to the profession the correspondence occupying your columns recently should contain something more than mere abuse.

Accusations levelled at gentleman of recognised probity and integrity need to be supported with something more than "envy, hatred, malice, and uncharitableness." To suggest "axes to grind" and speak of "take all and give nothing" shows a total ignorance of the position and work of councillors who can have nothing to gain but the satisfaction of having served the profession they love, and must invariably be out of pocket, in time and in hard cash, in leaving their own affairs and travelling—often long distances—to give their best efforts on the Council.

A councillor's value is not to be measured by his oratory in the chamber of the R.C.V.S. or in other and greater assemblies, but by the conscientious labour he puts in at Committees, where the work is laborious, often tedious, and devoid of glory, and unseen by the electors. The so called silent men find their tongues on Committees and demonstrate how "a still tongue makes a wise head." They have been good listeners in the general assembly, and having digested the subject, bring their strong common sense and practical knowledge to bear when it is most wanted and most likely to have effect.

There have been other occasions in the past when a bright meteoric star has come into the veterinary firmament and dazzled the voter with promises of cleansing the Augean stable; but contact with the realities, and the discovery of his own ignorance of Acts and Charters, has usually made him seek a back seat after one splendid effulgence by way of justifying his election. Now and again a sensible man, believing that an infusion of new blood is essential to the preservation of the body politic, has employed extravagant language in his new-found zeal, has honestly regretted his fulminations against tried and trusty Councillors, and has become a useful member.

Just as "every country has the government it deserves," so does a profession; and it is in the hands of the members to elect a different, if not a better, body of men to represent them on the Council. Better the present abuse than the apathy which has too long been displayed by the majority of the veterinary profession.

AUDI ALTERAM PARTEM.

Dear Sir,—I have read the letters appearing in your journal during the last week or two respecting the shortcomings of the Council. I think it is deeply to be regretted that the language of the respective contributors has not taken a more moderate and less abusive tone. To say that its members have "axes to grind," "take all and give nothing," etc., are accusations that are, in my opinion, both unjust and untruthful. The Council is representative of the profession and the bodies associated with it. The schools are represented, and justly so; the Board of Agriculture and the Army have also their representatives, each to look after the respective interests, in addition to the general welfare of the profession. Then there are the general practitioners—men who give their time and money willingly, and endeavour to carry out their duties with fairness and consideration. Will those who are so ready with their abuse of the Council be a little more constructive in their criticisms, and plainly state where the Council has failed? Not one word has been said on this point. It is so easy to generalise and abuse.

The writers complain that the majority are what is usually termed "silent members." For my part I think this is as well. If all were great talkers little work would be got through; indeed, I have often noticed what a lot of talk centres round a very small point. Again, wherever bodies meet it always has been—and always will be to the end—certain men will lead, be it in the House of Commons or anywhere else. But it by no means follows that the silent men are useless. Frequently the latter are the most useful men in committees—and, after all, the principal work is done there. When the different Chairmen of Committees read their reports to the Council it is only a précis of the conclusions come to, and has probably taken hours to arrive at.

I have, through a long period of years, noted men of the agitating order, who have entered Council to revolutionise everything and everybody, become as silent after their very first meeting as those to whom allusion has so often been made. Council work is not learnt in five minutes—let there be no misunderstanding on that point. It requires an apprenticeship to understand bye-laws. Get your Register out and read through those and the Charters, and see where you stand.

If the profession requires fresh representatives by all means have them—the matter is a simple one. I dare say a goodly number of those now representing us would willingly stand aside if asked to do so. But do drop abuse of men who are actuated by the best of motives, and who have been chosen as representatives by ourselves. Do play a clean game, and not besmirch the characters of honest men who have done their best. The change, if desirable, could surely be brought about by different methods.

FAIRPLAY.

### Sterilisation of Iodoform

"Place 10 gms. of iodoform in a yellow glass bottle of the capacity of 120 c.c., and add to it 60 c.c. of a 1:1000 solution of mercuric chloride. Shake together thoroughly so as to sterilise the iodoform, and add 3 gms. of olive oil, previously sterilised by heat. Again shake up until the iodoform forms a homogeneous mass with the oil. Allow to separate, decant, and reject the aqueous portion, thoroughly draining out the last trace of water, then add 87 gms. of sterile olive oil."

Iodoform may also be sterilised by shaking one part with two parts of 10 per cent. solution of formaldehyde, or it may be treated for three days with a 5 per cent. solution of carbolic acid containing 1 in 2000 of mercuric chloride.—*Pharm. Jnl.*

### Cruelty prosecution at Sheffield— successful appeal.

Henry Cranfield, blacksmith, Oughtibridge, was fined £5 by the Sheffield magistrates, on November 8th last, for cruelly ill-treating a pony belonging to William C. Fairweather, Hill Top, Oughtibridge.

On , at the General Quarter Sessions, for the West Riding of Yorkshire, at Sheffield, before Sir Samuel Roberts, M.P. (presiding), Mr. G. H. Norton, Mr. C. Wright, and Mr. E. Rose, the conviction was successfully appealed against.

Mr. Valentine Ball and Mr. Courtney Sandford were for the respondent, and Mr. T. E. Ellison and Mr. H. R. Bramley, instructed by Mr. J. E. Wing, for appellant.

Mr. Valentine Ball said Fairweather took the pony to be shod at Cranfield's. A twitch was used. The blacksmith struck the pony several times with the hammer and hammer shaft, the pony reared up, fell backwards, and fell down dead.

William C. Fairweather said when the pony pulled its hind foot away the blacksmith struck it five or six times on the ribs, and after the twitch was put on struck it on the head and neck. It reared up, and came down dead.

In reply to Mr. Ellison, witness said the blows were heavy. He wanted compensation for his pony. The prosecution was taken by the Royal Society for the Prevention of Cruelty to Animals.

The cause of death of the pony was rupture of the aorta, said Mr. Herbert Reginald Laycock, M.R.C.V.S. In his opinion the pony dropped dead from fright through the blows administered. The exertion in trying to get out of the way of the blows occasioned the rupture. There were no traces of bruises on the carcass.

Mr. Ellison contended that the whole case had been grossly exaggerated, and that the death of the pony was occasioned by plaintiff's own act in putting on the twitch.

The pony was a very awkward one, and "kicked like a steam engine," said Cranfield. Fairweather put on the twitch, and the pony struggled and died.

After hearing the evidence of Capt. Francis Summers, M.R.C.V.S., and Mr. Stephen Ernest Sampson, M.R.C.V.S.,

The Chairman said they were not satisfied that the pony died absolutely from cruelty. The evidence was conflicting, and the probability was that the pony dropped down dead from fright, not caused directly by cruelty. The conviction would be quashed.

[We are obliged to our unidentified correspondent for this "cutting," but *we much prefer* to have the date, and the name of the paper—both of which are given if page containing the matter is sent intact—postage  $\frac{1}{2}$ d.]

**MARGARINE FROM COAL.**—Prof. George Knox, Principal of the South Wales and Monmouthshire School of Mines, lecturing at the Wigan Mining College recently, stated that during the war margarine had actually been made from coal. Unfortunately, however, like all other fatty bodies derived from coal, the product was of little value as a fat former, but it helped to make bread more palatable. If only they could recover all the by-products formed by its destructive distillation, coal would have three times its present value.

Great Britain has only 2.6 per cent. of the coal reserves of the world, so that it is about time active measures were taken to obviate the enormous waste of coal and its by-products now taking place.

### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Anmls											
Gr. BRITAIN.													
Week ended Jan. 11	2		3	3	4	28			198	418	17	14	6
Corresponding week in	1918		5	6					145	304	28	21	8
	1917		20	23			1	1	67	148	36	42	18
	1916		12	12					115	374	16	77	273
Total for 2 weeks, 1919	10	2	8	8	4	28			387	862	39	40	21
Corresponding period in	1918		13	16			1	2	306	665	50	43	14
	1917		40	43			1	1	148	342	59	85	34
	1916		27	27			1	5	180	526	49	167	493

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Jan. 14, 1919

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND.	Week ended Jan. 11	Outbreaks							13	...	...
		...	...	...	...	...	...	...			
Corresponding Week in											
1918	...	...	...	...	...	...	...	4	9	...	...
1917	...	1	1	...	...	...	...	...	21	3	28
1916	...	...	...	...	...	...	...	1	14	8	29
Total for 2 weeks, 1918	...	...	...	...	...	...	...	6	26	3	13
Corresponding period in											
1918	...	...	...	...	...	...	...	8	26	...	...
1917	...	1	1	...	...	...	...	1	41	6	41
1916	...	1	5	...	...	...	...	4	27	9	29

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Jan. 13, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1594.

JANUARY 25, 1919.

VOL. XXXI.

## NOMINATIONS FOR ELECTION TO COUNCIL.

The following nominations have been made. The last day for nomination of candidates is Friday next, 31st inst., and the "foreign" voting papers, to members who are at a distance, will be issued a few days later.

Candidate.	Nominated by
A. LAWSON ...	Messrs. Garnett, Brittlebank
S. STOCKMAN ...	Trigger, Garnett
G. H. GAIGER ...	Stockman, Wilson
O. C. BRADLEY ...	Abson, Sumner
G. P. MALE ...	Banham, Coleman
D. HAMILTON ...	Bradley, Wilson

Of these, the first four are for re-election, and three of them hold positions which make their presence on the Council justifiable—and desirable. Of the two new men, Mr. G. P. Male is best known at this end of England as a capable, up-to-date practitioner, who has steadily upheld the status of the practitioner by both precept and practice, and has put in years of good work in the Royal Counties Society, of which he is this year President; and to whom, with a few other men, belongs the credit of keeping the Society going through the recent troublous years.

Mr. D. Hamilton is less well known, but with two good sponsors we must conclude that he is a worthy candidate.

As in previous years, our columns are open to candidates to state their views at any reasonable length—always remembering that paper is not yet plentiful, and space is therefore still a consideration.

## A DEPARTURE IN EDUCATION.

An experiment has been initiated at the University of Columbia, U.S.A., which, as outlined in a note quoted on page 263, promises to materially assist the selection of men for professional life.

It has for years past been a subject of regret amongst the more thoughtful members of the medical profession that many men who are unsuitable are admitted to the profession on educational qualification—in other words the examination test alone will not indicate the man who will make a skilful and reputable practitioner. That some finer protective network is required is suggested by the passage in the recent report of our Examination Committee which states that applications were received for concessions in the examinations by a B student rejected three times, and a C student rejected five times. It is one of the penalties of poverty that our schools should need to keep such men on their books: but until the Officers of the State understand and acknowledge the value of our work to the nation, and find the means to keep the Colleges in a healthy financial position, we can scarcely hope for improvement. It is a scandal; paralleled by the ignorant neglect of our agriculture as a national asset.

## EQUINE DIGESTIVE DISORDERS.

Comparatively little has been written upon this subject recently. This is not because it has become less important to practitioners than before; for the reverse is the case. The horse is a more important veterinary patient than he was five years ago; and the particular diseases have gained in importance for that general reason and for other special ones. Such prime causative factors of equine digestive troubles as overwork and improper or irregular feeding have been more active during the war. Their results have been manifest in both civil and military practice; but very little has been written upon the subject.

This is all the more regrettable from the fact that, in the years immediately preceding 1914, there was good reason to believe that the study of the subject in England was entering upon a new phase. Clinicians generally were studying the causes and differential diagnoses of these diseases more closely than ever before; post-mortem examinations were more frequent and more careful, and treatment had undergone considerable modifications within the previous decade. Take the common and exceedingly difficult question of the differentiation of the equine colics. The publication by Gofton in 1912 of the first English observations of obstruction of the caecum was one characteristic sign of the times. Another was the increased attention then being paid to displacements, not necessarily considerable or irreducible, of the large colon—a subject which, though some practitioners may still be inclined to regard it as "theoretical" is nevertheless exceedingly practical, and may yet assume the same importance here as it has on the Continent. English clinicians, at that time, were beginning to follow the lead of their Continental brethren with respect to equine digestive disorders, though in many cases they were doing so quite independently. Their work was already showing considerable results, and seemed likely to show more. That hopeful period seems to have terminated for the present; for little has since been published upon the subject.

Yet in the meantime the whole subject has actually gained in importance, as most practitioners know. Old causes of these diseases are still at work, accentuated by war conditions; and some new causes have arisen. Practitioners are daily dealing with all as best they can—and saying nothing of their results. We seem to be on the eve of a temporary revival in horse practice; but as a profession we are hardly going the right way to equip ourselves for it.

## CLINICAL CASES (DOGS.)

The following cases are recorded as illustrating the natural powers of resistance and repair of the tissues in the dog.

*Case I.* A small mongrel fox-terrier bitch was brought in from a farm for treatment, having been trodden on by a cart horse.

On examination, a dirty blood stained mass was seen protruding from the abdominal cavity, in the right inguinal region. This mass was seven inches in length and two and-a-half inches in diameter. At the point of exit it was constricted by the small opening in the abdominal wall to a diameter of three-quarters of an inch. The animal was prostrate, the mucous membrane of the mouth pallid, the pulse weak, and the body surface cold.

The animal was chloroformed, and the protruding tissues, after being cleansed, were found to consist chiefly of a portion of the mesentery, with its vessels engorged, and there was also a small portion of intestine in the upper portion of the mass, in the part nearest to the point of exit from the abdominal cavity.

A silk ligature was applied to the mesentery as near the point of exit as possible, and the stump returned with the loop of intestine to the cavity of the abdomen. The breach in the abdominal muscles was closed with interrupted sutures of Rhea fibre, the opening in the skin, which was slightly enlarged to admit of better drainage, being left patent.

After five days the sutures in the abdominal muscles were removed and the dressing of 1:1000 Chinosol, which had been used throughout, was continued twice daily for another five days, the animal being then returned to the owner. The case gave no further trouble, made a complete recovery, which extended to the writers knowledge up to two years after the operation.

*Case II.* The subject was an Irish terrier, 10 years of age, whose only previous history of having been treated, except for wounds, had been for an attack of Biliary fever, due to infection by *Piroplasma canis*.

When first brought for treatment the history was "he had been dull for several days, and then a couple of days previously a slight swelling had been noticed in the right flank. He was constipated and when given castor or milk vomited."

On examination, the temperature was 103.2 F, pulse hard, tongue furred, and the animal in a depressed condition. A deep seated abscess appeared to be forming in the right flank, about an inch posterior to the middle third of the last rib.

Treatment the first day was confined to giving an enema of Olive oil, and painting the skin over the swelling with Tr. Iodi.

The following morning, as there appeared to be no relief of the symptoms, it was decided to operate. The animal was anaesthetised with chloroform, an incision made through the skin over the swelling and then through the external muscular layer, which exposed a cavity contains a dirty grey fluid with necrotic debris of muscle. On the latter being

removed, a sharp solid body could be felt which, after a slight dissection, was removed with the forceps and proved to be a portion of the scapula of a fowl, a triangular flattened piece of bone  $1\frac{1}{4}$  inches in length which had made its way from the intestine. Owing to the danger of extending the localised peritonitis at the point of exit of this foreign body, the operation was confined to removing necrotic debris, swabbing out the wound with a solution of Lysol, and inserting a gauze plug as a drain.

During the next few days there was an improvement in the animal's condition, liquid food was retained but the faeces were liquid, and only passed in small quantities. On the fifth day after the operation, the site of the operation wound which had commenced to heal, again became swollen, and a further operation resulted in a smaller piece of bone being removed.

After the latter operation there was a rapid improvement in the animal's health. He was kept on a fluid diet for a week and then gradually brought out to his normal diet of boiled rice and fowl (without the bones this time.) During the remaining three-and-a-half years of this animal's life up to the time he was destroyed on account of becoming deaf and blind, there was not any trouble to show that any adhesions that may have formed were interfering with the normal action of the intestine.

J. A. GRIFFITHS, M.R.C.V.S.

Rinderpest Commission, New Langenburg (G.E.A.)

## ABSTRACTS FROM FOREIGN JOURNALS.

ASKARON, A TOXIC CONSTITUENT OF HELMINTHS, ESPECIALLY OF ASCARIDES: ITS BIOLOGICAL ACTION.

Sbimamure Torai and Fujh Hajime have published an article upon this subject (*Boll. Ist. Int. d'Agr.*). From ascaridian mesenteric liquid and from dried and pulverised ascarides (*A. lumbricoides* of man and the pig, and *A. megalocephala*) they have isolated a highly toxic albumose-peptone, for which they propose the name of "Askaron." This substance provokes all the symptoms of intoxication which are observed in ascariasis, and in consequence of injections of the mesenteric liquid or aqueous extract of *Ascaris*. It is fairly well diffused among other helminths. The authors have demonstrated its presence, with identical toxicity, in *Filaria immitis*, *Gastrophilus* larvæ, *Sclerostomum vulgare*, *Oxyuris curvula*, and *Tricocephalus depressiusculus*.

Etheric and alcoholic extracts of dried and pulverised ascarides, even in strong doses, are atoxic; but they have a hæmolytic action. The latter, however, is absent from askaron.

The horse is the most sensitive experimental animal; and next come the guinea-pig, dog, and rabbit. The rat and mouse are refractory.

The principal symptoms of intoxication produced by askaron are difficulty of respiration, dilatation of the peripheral blood-vessels, intensification of the secretions and excretions, nervous disturbances, and depression of the temperature and blood pres-

sure. The post-mortem findings are dilatation of the lungs (in the guinea-pig), hyperæmia and hæmorrhagic exudate in the gastro-enteric tube, endocardium, and internal organs (especially in the lungs), and incomplete coagulation of the blood. The mortal dose of crude askaron per kilogramme of live weight, by intravenous injection, is 0.004 milligrammes for the horse, 0.8 for the guinea-pig, 2.0 for the dog, and 5.0 for the rabbit.

In the horse, ocular instillations of even very dilute solutions of crude askaron always provoke severe lachrymation; this is attributed to the volatile substances of the ascarides. With repeated instillations the reaction always becomes more feeble, but never disappears.

After a first intoxication with askaron, a strong resistance develops very rapidly. Samples of askaron proceeding from different species of helminths are reciprocally protective in equal grades.

Askaron is primarily toxic to a high degree; the serum of the normal horse does not contain antibodies against it. the horse may be actively immunised against a dose of askaron 400 times greater than the lethal one; and this high immunity should be ascribed to cellular resistance.

In the worms themselves, askaron may be regarded as a product of metabolism.—(*La Clinica Veterinaria*.)

W. R. C.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

In each case the amount subscribed is £1 1s., except (\*) £2 2s., (†) £4 4s.

E. F. Angler, Capt.  
G. Atkinson, Capt.  
T. S. Atkinson, Douglas  
W. Awde, Major  
E. A. Batt, London  
T. G. Batt, London  
J. H. Bennett, Romford  
R. Bennett, Capt.  
H. Bibbey, Winsford  
C. Blackhurst, Broughton,  
nr. Preston  
W. E. Blackwell, Capt.  
T. le Q. Blampied, Capt.  
S. J. Blanchard, Salisbury  
E. W. Bovett, Bridgwater  
\*J. W. Brittlebank, c.m.g.  
Lt.-Col. (1918, '19)  
A. Broad, St. John's Wood  
A. S. Brooksbanks,  
Withington  
R. Bryden, Capt.  
J. Buscomb, Stroud, Glos.  
W. Bushnell, Capt.  
J. B. Buxton, Herne Hill  
J. R. Carless, Shrewsbury  
F. L. Carter, London  
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H. W. Caton, London  
T. W. Cave, Wye, Ashford  
J. C. Coleman, Swindon  
J. Cameron, jun., Capt.

T. D. Condell, Kilkenny  
W. Crawford, Leeds  
J. A. Cunningham,  
Guildford  
E. H. Curbishley, Alderley  
Edge  
W. Dale, Coventry  
W. G. Darling, Capt.  
J. Davidson, Newcastle-  
on-Tyne  
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W. P. S. Edwards, Capt.  
C. W. Elam, Liverpool  
R. J. Foreman, Tottenham  
W. J. Foreman, Leadgate  
A. B. Forsyth, Cannock  
G. H. Gibbings, Tavistock  
G. E. Gibson, Oakham  
F. C. Gillard, Capt.  
P. Gillespie, Salford  
H. C. D. Gollidge, B. of A.  
H. Gray, London  
T. S. Green, Capt.  
J. A. Griffiths, Nyasaland  
G. S. Harris, Hailsham  
G. J. Harvey, Lieut.  
J. Hatch, Hampstead

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Buckingham  
F. E. Heath, Major  
L. W. Heelis, Capt.  
H. B. Hiles, Worcester  
B. Hoadley, W. Hartlepool  
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T. Hogg, Capt.  
C. Holland, m.c., Capt.  
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J. J. R. Jackson, B. of A.  
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J. Macfarlane, Capt.  
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E. E. MacLachlan, Capt.  
J. Maguire, Liverpool  
James Martin, sen.,  
Wellington, Salop

S. G. Masterman, Hunts  
C. Masson, Torquay  
A. S. Mathias, Capt.  
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W. Noar, Bury  
W. T. Oliver, Capt.,  
Tamworth

C. F. Parsons, Cheltenham

Previously acknowledged 149 2 0  
91 5 0  
£240 7 0

Jan 22.

A. S. Adams, Dursley  
H. Begg, Lanark  
H. W. Billingham, Alresford  
J. Brown, Invergordon  
A. P. Burgon, Haverhill  
O. A. Ducksbury, Lancast'r  
E. R. Edwards, B. of A.  
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M. T. Giblin, Rochdale  
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W. W. Goldsmith, Hitchin  
\*W. Harris, L.C.V.D. ('18-'19)  
\*R. C. G. Hancock, Capt.  
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T. F. Hogben, Canterbury  
A. P. Logan, Ballyclare  
D. MacGregor, Preston  
W. F. Maynard, Romsey  
C. Morgan, Nonington,  
Dover

\*J. J. O'Brien, Claremorris  
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J. Peddie, Auchterhouse

P. Perkins, Hastings  
J. F. Player, Capt.  
T. S. Price, London  
J. M. Richardson, m.c., Maj.  
J. R. Rider, Lieut.  
J. W. Rider, Beamish  
E. Ringer, Leamington Spa  
M. Robinson, Barnsley  
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J. H. Shepherd, Guildford  
F. Smith, K.C.M.B., c.b.,  
Maj. Gen.

P. W. Dayer Smith, Maj.  
J. Sommerville, Capt.  
A. Spreull, d.s.o., Maj.  
C. H. Spurgeon, Petworth  
W. P. Stableforth, Honiton  
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M. C. Taitby, Birmingham  
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J. L. Taylor, Capt.  
H. C. Taylor, Capt.  
F. Thompson, Morecambe  
H. A. Thorne, Capt.  
F. T. Trewin, Watford  
R. C. Trigger,  
Newcastle-under-Lyme

W. Trigger,  
J. B. Tutt, Winchester  
J. Varney, Winslow  
W. J. Wagstaffe, Macclesf'd  
F. M. Wallis, Halstead  
W. D. Wallis, Barnet  
D. Weir, Capt.  
E. A. West, London  
J. Willett, London  
S. A. Winkup, Montgom'y  
J. S. Wood, Capt.  
J. Woodger, Chiswick  
J. M. Whyte, Capt.  
T. W. W. Wright, Capt.  
T. D. Young, o.b.e., Lt.-Col.

Previously acknowledged 149 2 0  
91 5 0  
£240 7 0

J. L. Perry, Cardiff  
R. L. Phillips, Loughb'gh  
H. C. Reeks, Spalding  
A. Renfrew, B'dway, Worc.  
F. J. Richmond, Oldham  
C. Roberts, Tunb'dge Wells  
H. H. Roberts, Leatherh'd  
J. B. Robertson, Lancaster  
F. G. Samson, Mitcham  
T. E. Smith, Market Rasen  
M. E. White, Petersfield  
B. Wooster, H. Wycombe  
P. Wilson, Lanark  
£37 16 0

The following Officers of  
R.A.V.C., each £1 1s.  
J. J. Aitken, d.s.o., Lt.-Col.  
R. G. Anderson, Maj.  
Wm. Anderson, Capt.  
J. O. Andrews, d.s.o., Maj.  
W. J. Bambridge, Capt.  
A. Barr, Capt.  
D. J. Barry, Major  
E. B. Bartlett, Lt.-Col.

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R. F. Bett, Major  
G. W. Bloxsome, Capt.  
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H. Bone, m.c., A/Maj.  
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J. M. Dawson, m.c., Capt.  
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E. S. W. Peatt, Capt.  
C. W. Perrin, Capt.  
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R. Porteous, Major  
R. K. Porteous, Capt.  
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T. W. Rudd, Col.  
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T. L. Shea, Major  
W. Shipley, Capt.  
A. Smith, i.c.v.d., Lt. Col.  
J. M. Smith, Capt.  
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J. J. M. Soutar, Capt.  
C. E. Steel, Lt.-Col.  
L. L. Steel, Capt.  
J. R. Steevenson, d.s.o.,  
C. M. Stewart, Capt. [Maj.  
H. A. Stewart, Major  
R. J. Stow, Capt.  
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T. T. Taylor, Capt. [Lt.-Cl.  
W. H. Taylor, Major  
H. Thomson, c.b., Maj.-Gl.  
G. Tillyard, Major  
R. Tindle, Major

A. G. Todd, d.s.o., Lt.-Col.  
C. H. S. Townsend, m.c.,  
P. J. Turner, Capt. [Capt.  
P. R. Turner, Capt.  
L. M. Verney, d.s.o., Major  
W. H. Walker, d.s.o., Maj.  
E. Wallace, Capt.  
W. S. Walker, Capt.  
M. P. Walsh, Major  
F. J. Weir, Capt.  
A. J. Williams, Lt.-Col.  
D. R. Williamson, Major  
G. Williamson, Major  
J. E. Young, Capt.

	£189	0	0
Brt. down	37	16	0
Previously acknowledged	240	7	0
	£467	3	0

#### DERBYSHIRE VETERINARY ASSOCIATION.

The quarterly meeting of the Association was held at Derby, on Tuesday, January 14. The President, Mr. A. Levie, Derby, occupied the chair, and there were also present: Messrs. J. T. Abell, Derby; G. Howe, Buxton; E. Marrison, Bakewell; T. H. L. Duckworth, Ashbourne; J. C. De Ville, Uttoxeter; C. Barnes, Cheadle; and F. T. Prince, Ashbourne, Hon. Secretary.

#### PRESIDENTIAL ADDRESS.

Mr. A. LEVIE.

The President, in his opening address, said he very much appreciated the honour of being elected the first President of the Association. He looked upon the duties as onerous, because they were faced with an important programme from which they hoped good would result, not only to the members individually, but to the profession as a whole. In the period of reconstruction upon which the country was entering, it behoved the veterinary surgeon to look after his own interests and see that he was not left behind in the race for social and economic betterment. Their efforts must be directed to progress through reform, and if they were to attain their ideals and raise the social status of their profession they must take a united stand on all matters in which their interests were challenged or involved. They must in word and in deed act up to their famous motto, "Strengthened by unity." To do this, they must set aside all petty professional jealousies which might exist. They must discuss more freely their professional affairs, interest themselves in public administrative work, secure representation on local bodies, and there voice the claims of the profession to official recognition whenever opportunity occurred. Especially must they be watchful of the medical profession, or at least that branch of it that was devoted to public health. Medical Officers were no friends of the veterinary profession, or they would not allow important offices, in which a veterinary training was essential, to be filled by laymen. In the department of Public Health, doctors endeavoured to thwart the upward movement of the veterinary profession by throwing obstacles in the way. Medical officers must be taught to mind their own business and to understand that veterinary surgeons, with a long College training, were quite capable of dealing with their own affairs without outside interference. Therefore they must see that veterinary appointments under Corporations and County Councils were held by duly qualified veterinary surgeons who would not be required to play second fiddle to the medical officer of health, but who would have full control of their own department. If they were



all united, he was quite satisfied that they could obtain that object. That was the line of progress which the Derbyshire Association intended to follow, and he appealed to the profession as a whole to support them in their endeavour to secure the recognition to which he believed they were entitled.

#### FEES FOR EXAMINATION.

Several members referred to the question of a uniform fee for the examination of horses for soundness, and expressed the view that united action was necessary in their mutual interest.

The following resolution was proposed by Mr. Duckworth, seconded by Mr. Marrison, and carried unanimously: "That the minimum fee for examination as to soundness, with or without a certificate, should be one guinea, and that mileage should be charged extra."

#### PRACTITIONERS' ACCOUNTS.

The PRESIDENT said it would be a good thing if practitioners would notify each other of persons who ran up accounts that they never intended to pay. Some unscrupulous people got into one man's debt and then changed to another veterinary surgeon. He thought a central bureau where information on that point could be obtained would be a very good thing. Practitioners were generally disposed to help the really poor man, whose only horse, on which he depended for his living, needed attention, but that was very different from the case of a man who was well able to pay but who preferred to get into debt.

With regard to the sending out of accounts, it had been the practice of some of them in the past to send them out in detail, whilst others had simply charged a lump sum. He invited members who adopted the latter course to give the meeting the benefit of their experience.

Mr. DUCKWORTH said he now sent out his bills, "To professional attendance from such a date to such a date." "Professional attendance and medicine" was his usual formula, and only once this last year had he been asked for details. He then supplied the details, but without mentioning any prices.

Mr. DEVILLE said his experience was equally satisfactory.

Mr. ABELL said he charged his clients a lump sum and had never had any complaint.

Mr. MARRISON said that except in one or two special cases he had never given details in his accounts for sixteen years.

#### AGRICULTURAL SHOWS AND MEDICINE VENDORS.

Mr. DUCKWORTH raised the question of veterinary surgeons accepting honorary appointments at local agricultural shows where quack medicine vendors were allowed to pitch their stands. He considered it was an insult to ask a veterinary surgeon to give his time at a show at which patent medicines, which undercut the profession, were freely sold.

Other members shared Mr. Duckworth's views, and the suggestion was made that in such cases veterinary surgeons should insist on charging a fee.

Mr. DEVILLE thought it would be difficult to take such a stand in a very small town, where practically all the local exhibitors were one's own clients.

The PRESIDENT said this was a point on which they could only hope to succeed by unity of action. He believed that if veterinary surgeons everywhere were agreed they would carry the day.

On the motion of Mr. Duckworth, seconded by Mr. Howe, the following resolution was unanimously carried: "That at forthcoming shows veterinary surgeons refuse to act in an honorary capacity if medicine vendors are allowed to have stands, and that in such cases a

reasonable fee be charged." It was further resolved to send a copy of this resolution to other Veterinary Associations throughout the country.

*Dates of meetings.* It was agreed that the meetings of the Association be held on the first Tuesday in the months of January, April, July, and October, at the St. James' Hotel, Derby, at three o'clock in the afternoon.

F. T. PRINCE, Hon. Sec.

#### VICTORIA VETERINARY BENEVOLENT FUND.

A meeting of the Council of the Fund was held at 10 Red Lion Square, London, W.C., on Thursday, Jan. 9th., when the following members were in attendance:—Mr. S. H. Slocock, President, in the Chair; Messrs. E. W. Baker, G. A. Banham, T. S. Price, R. C. Trigger, E. A. West, G. H. Wooldridge, J. Willett, and P. J. L. Kelland, Hon. Secretary. Apologies for absence were received from Messrs. Dunstan, Gooch, McIntosh, and Young.

The minutes of the previous meeting were taken as read, and confirmed.

#### HON. SECRETARIES' REPORT.

Since the previous quarterly meeting the following new Subscriptions and Donations have been received:—

	£	s.	d.
G. H. Broad		10	6
L. J. Blenkinsop, Maj.-Gen.	1	0	0
H. Burrell, Capt.	1	1	0
C. J. Clibborn, Capt.	1	1	0
C. H. Cordy, Capt.	2	2	0
J. Davidson	1	1	0
W. P. S. Edwards, Capt.	1	0	0
F. Eassie, Col.		10	6
H. Gamble, Lt.-Col.	1	0	0
C. E. Huston, Capt.	1	1	0
J. Harrison, Maj.	1	1	0
T. Hodgins, Capt.	1	1	0
R. C. J. Hancock, Capt.	1	1	0
C. Holland, Capt.	1	1	0
H. H. Lord, Capt.	1	1	0
J. M. Lund, Capt.		10	6
J. A. B. McGowan, Lt.-Col.		10	0
W. H. McDougall, Lt.-Col.	1	0	0
L. H. Macqueen, Capt.	1	1	0
J. Nicholas, Lt.-Col.	1	1	0
J. W. Nolan	1	1	0
North Midland V.M.A.	2	2	0
J. J. O'Carroll, Capt.	2	0	0
W. H. Preston, Capt.	1	1	0
S. C. Rowbotham, Capt.		10	6
J. C. Storie, Capt.	1	1	0
T. H. Sherlock, Capt.		10	6
F. J. Taylor, Maj.		10	6
R. F. Wall, Capt.	1	1	0

#### Donations.

Boltons Cinema	11	7	6
C. E. Huston, Capt.	4	4	0
L. J. Blenkinsop, Maj.-Gen.	4	0	0
P. J. O'Brien, Capt.	5	0	0
Dublin Veterinary Students	6	0	0

#### Collecting Boxes.

E. Whitley Baker	12	6	A. M. Munro	5	15	2
G. A. Banham	10	6	J. H. Kelland		10	0
W. F. Barrett	1	2	F. L. Gooch		10	0
J. L. Cormack	1	10	S. H. Slocock		10	0
J. W. Conchie	1	14	J. & H. Sumner	1	0	0
E. R. Edwards	7	0	J. Willett	1	8	0
F. W. Garnett	10	0	S. M. Woodward		15	0

The total number of new subscribers gained during the year is 66. The total amount received from collect-boxes is £20.

Acting on the instructions of the Council at the October meeting, the President and Treasurer increased the grants in twelve cases, involving a monthly increase in all of £9 4s. 2d. In case 41, a grant of 10/- per month was paid for three months, but a cheque has now been received from the recipient in repayment of the grant made, relief being no longer required.

Following the example set by other Benevolent Societies, the President and Treasurer decided to send out to each recipient on the books a Special Victory Bonus of £1. This was distributed before Christmas, and has been acknowledged in every case by the recipients with much gratitude. It is hoped that the Council will approve the action taken.

On the motion of Mr. Trigger, seconded by Mr. Price, it was resolved: That the report be adopted, and that the action taken by the President and Treasurer be approved.

Mr. WILLETT drew attention to the very gratifying result of the provision of collecting boxes, and expressed the hope that boxes would be taken by a larger number of members.

*Stephenson Bequest.* The Solicitor reported the progress made with the incorporation of the Society, and he was requested to inform the Honorary Secretaries as soon as the incorporation was complete, in order that a special meeting should be called for the purpose of obtaining the necessary signatures to the Memorandum and Articles of Association, and for deciding as to investment of funds.

*Cases for consideration.* No. 7.—Application for grant towards son's outfit. On the proposition of Prof. Wooldridge, seconded by Mr. Price, it was resolved: That a grant of £25 be made in this case, and that the sum of 5/- weekly, previously paid, be withdrawn.

No. 43. On the proposition of Mr. Willett, seconded by Mr. West, it was resolved: That the applicant be informed that the Council cannot see their way to render assistance, in view of the fact that they have many more urgent cases on the books.

No. 42. On the proposition of Mr. West, seconded by Prof. Wooldridge, it was resolved: That the applicant be informed that in view of more urgent calls on the funds, the Council is unable to accede to her request.

P. J. L. KELLAND, } Hon Secs.  
FRED BULLOCK, }

#### The R.A.V.C. Comforts Fund.

Dear Sir,—The Committee, R.A.V.C. Comforts Fund, wishes to convey its grateful thanks to Mr. J. Ewing Johnston, M.B.E., and to Mr. F. W. Brittain for the magnificent cheque of £1000 sent in as a Christmas gift to the Fund.

This is Belfast's splendid reply to an appeal made by Col. R. H. Holmes, C.M.G., D.D.V.S., Ireland, on behalf of the Royal Army Veterinary Corps Comforts Fund.

The Corps can hardly be sufficiently grateful to Mr. Ewing Johnston and Mr. Brittain for the wonderful organisation which has resulted in the production of this large sum.

Substantial financial help has come from many professional men who were already up to the hilt in work—yet they have found both time and energy to produce the very excellent results which have at different times been announced in *The Record*.

It is hoped to continue the Fund until demobilisation is complete.—Yours faithfully,

E. A. BLENKINSOP.

29/7 Bramham Gardens, S.W.  
14th January.

#### Subscriptions received since last published in "The Veterinary Record" Nov. 23rd, 1918.

Mrs. Dibben, Blackheath	2	10	0
Mrs. McGowan, Hove	1	1	0
per Maj. Lornie, R.A.V.C., No. 16 V. Hosp., from Regt. Fund	10	0	0
David Wyllie, Capt. R.A.V.C.	1	1	0
per Capt. D. Wyllie, R.A.V.C., from N.C.Os. and men of 1st Lond. Div. V. Hosp., Tunbridge Wells	2	5	0
Mrs. Cochrane	1	1	0
E. C. Orton, Maj. R.A.V.C.	1	1	0
G. Mayall, Esq. (M) Bolton			
"A Peace offering"	1	0	0
David Greene, Capt. R.A.V.C.	1	1	0
S. Dawkins, Maj. R.A.V.C.	1	1	0
A. W. Mason, Lt.-Col. R.A.V.C.	1	1	0
F. Airey, Capt. R.A.V.C.	10	6	
per Capt. Airey, R.A.V.C.: 320th Bde, R.F.A.			
Sgt. Anderson, R.A.V.C.	2/6		
" Sibley, "	2/6		
" Clark, "	2/6		
" Faulkner, "	2/6	10	0
per Capt. Airey, R.A.V.C.: 321st Bde, R.F.A.			
Sgt. Allsop, R.A.V.C.	2/6		
" Ford, "	2/6		
" Watson, "	2/6		
" Riches, "	2/6	10	0
per Mrs. McKinna, from the Highfield Congl. Sewing Party, Huddersfield	1	1	0
H. Greenfield, Maj. R.A.V.C.	1	1	0
per Maj. H. Greenfield, R.A.V.C.:			
Capt. E. Sewell, R.A.V.C.	£1	1	0
" J. J. Evans, "	1	1	0
" F. D. Neal, "	1	1	0
H. G. Allen, Maj. R.A.V.C.	2	0	0
Mrs. Dibben	10	0	0
H. Jewell, Capt. R.A.V.C.	1	1	0
D. V. Reed, Capt. R.A.V.C.	1	1	0
per Lt.-Col. Walker, R.A.V.C., from Canteen Fund, No. 4 V. Hosp., B.E.F., France	10	0	0
C. W. Townsend, Capt. R.A.V.C.	1	1	0
H. D. Sparrow, Capt. R.A.V.C., O/C No. 5 V.E.S., B.E.F.	1	0	0

#### Parcels received since November 23rd.

Mrs. Cowan: 20 mufflers, 10 pr. mitts.  
Mrs. Lawrie: 2 pr. gloves, 1 muffler, 1 helmet  
Mrs. Porteous: 1 mufflers. Mrs. Villar: 1 muffler  
Mrs. Harris, St. Alban's Work Party: 22 mufflers, 4 pr. Mitts.  
Mrs. Prichard: 7 mufflers, 1 pr. mitts. [mitts, 1 pr. cuffs  
Mrs. Garnett: 17 mufflers, 20 pr. socks, 2 pr. gloves  
Mrs. Mosley: 1 muffler, 1 pr. gloves  
Mrs. Malcolm Gordon: 13 mufflers, 3 pr. mitts.  
Mrs. Kirby: 4 mufflers. Mrs. Kay Lees: 18 pks. cards  
Mrs. Perry: 12 pks. cards. Mrs. Cockrane: 5 pks. cards  
Mrs. McGowan: 2 pks. cards, 2 games  
Mrs. Blenkinsop: 10 pks. cards

#### GLASGOW VETERINARY COLLEGE.

A Meeting of the Governors of the Glasgow Veterinary College was held within the Secretary's office, 105 Saint Vincent St., Glasgow, on Wednesday, 15th inst., at 3 p.m., Sir Hugh Shaw Stewart, Bart., C.B. in the Chair.

The following appointments to the Board of Governors were reported:—

- (1) By the County Council of Dumbarton—  
Capt. Alan Burns.

- (2) By the County Council of Renfrew—  
Messrs. Matthew Bowie, William Marshall,  
A. A. Hagart Spiers of Elderslie, John  
Stewart, and John Wilkinson.

- (3) By the School Board of Glasgow—  
Mr. Thomas O'Hare, B.L.

- (4) By the Glasgow Agricultural Society—  
Mr. William Strang.

Mr. Hugh Duncan, the Secretary, intimated that the contributions received by him to date to the Sheep Diseases Investigation Fund amounted to £487 5s. 1d., and that Prof. Geiger was assiduously devoting himself to Research Work in connection the matter.

It was further reported that a number of former students had already been demobilised from the Army, and that it was expected there would be a large increase in the number of students in a short time.

### COCCIDIOSIS IN THE RABBIT.

To the Editor of "The Veterinary Record."

Sir,—The letter from Mr. J. B. Buxton which appears in *The Veterinary Record* of the 18th inst., in reply to mine in the previous issue, calls for a short rejoinder.

Mr. Buxton apparently wishes your readers to believe that the statements which he made at the meeting of the Central Veterinary Society conflict only with peculiar views held by myself, and that he has a good defence for what he said if he only cared to make it. That attitude, however, is not consistent with honesty and a knowledge of the subject.

I have not put forward any peculiar or special views concerning coccidiosis in the rabbit, either as regards the life history of the parasite or the lesions which it causes. The mis-statements made by Mr. Buxton related to matters about which there is no difference of opinion among protozoologists and pathologists at the present day.

I am, Sir,  
Ryl. Vet. Coll.,  
21st January.

Your obedient servant,  
J. M'FADYEAN.

### Test for mentally inert at the University of Columbia, U.S.A.

A selective draft system for eliminating the mentally inert from entrance into Columbia University has been decided upon by the University Faculty. Hereafter, psychological tests based on the Binet formula, modified by tests of the American War Department, will be enforced upon all applicants for matriculation, thus providing room for other students who have the intellectual right to a university career.

This experiment is a development of the excellent results obtained by the American Army in applying psychological tests in officers' training schools to determine whether applicants with book learning also had the mental qualities necessary for occupying commanding positions. Prof. Jones, head of the department of admissions to Columbia, explains:

"Examinations will be held as formerly, but in the opinion of the Faculty, many who can comply with the traditional requirements of admission do not make good university material, and such applicants we hope to exclude. It has been found that many students in the preparatory schools could be coached to pass university entrance examinations, but some of them had not the mental capacity for further profitable education. It is better for them and for the University that they should stay out and get into a more suitable environment, where they can make something of themselves."—*The Times*.

### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Jan. 17.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS

Temp. Capt. E. Armstrong relinquishes his commn. on acct. of ill-health contracted on active service (Jan. 18), and retains the rank of Capt.

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Jan. 18.

Temp. Capt. T. G. Heatley to be actg. Maj. while comdg. a Vety. Hosp. (Dec. 14, 1918).

Jan. 22.

The initials of Lt.-Col. C. B. M. Harris, D.S.O., F.R.C.V.S., are as now described, and not as in *Gazette* of Jan. 4. Capt. J. C. S. Powell relinquishes his commn. on acct. of ill-health contracted on active service (Jan. 23), and retains the rank of Capt.

### Diseased Army Horses.

Mr. Hawk called attention to the fact that a large number of army horses were being brought into the county (Cornwall) carrying with them sundry diseases, including mange of the very worst type and glanders. Precautions had been taken in the county under the direction of the Army Veterinary Department by spraying horses at a very great cost, and it was hoped in that way to prevent the spread of the diseases. But they had no guarantee with regard to "cast" horses, and even if they had, he believed it was admitted they must bring some disease with them. It could therefore be seen the county was in great danger, and, indeed, the country, of the spread of the diseases to home horses. What steps could be taken by the committee? The best sanitary measures should be employed at hostels and other places where horses congregated. He feared a serious outbreak in the county, and they must take time by the forelock.

The Chairman: Someone would be liable for bringing diseased horses into the county. The best thing is to prevent such animals coming in.

Mr. Hawk said that as far as he could ascertain no precautions were taken, but even if they were, and the disease suppressed for a time, the most astute veterinary might be unable to detect it while it was suppressed, and yet it broke out again. So if they had a guarantee, which they had not, it would not guard against the danger they were faced with.

Mr. Banfield said if the disease was properly cured it did not come on again.

Mr. Hawk said they saw these horses marked a, b, c, or d, and those marked "d" were to be destroyed for food. If anything was to be done in Cornwall theirs was the committee to do it.

Mr. A. Cox thought the only step would be to examine horses before they were sold, to treat them if they required treatment, and not to sell them until they were fit. Surely that authority could refuse to allow horses to be sold if a veterinary certified them to be suffering from disease.

It was stated that the committee had no power to prevent diseased animals being sold, and the clerk (Mr. Coward) said the Army authorities sold the horses just as they were, under no guarantee. If anyone was buying a horse he should have it examined by a veterinary before purchase.

Mr. Hawk was empowered to take any suitable steps in the matter, and to act with Mr. Banfield in an expenditure up to £50.

Mr. Cox suggested that the Board of Agriculture should be asked to communicate with the Army

authorities to prevent diseased animals being sent out, but this was not adopted. It was, however, agreed to distribute among farmers and dealers copies of a Board of Agriculture circular dealing with the treatment of disease.—*Western Morning News*, January 16.

#### OBITUARY.

P. WOODROFFE HILL, M.R.C.V.S., St. Leonards.  
Graduated, Lond: May, 1894.

Mr. Hill died at Southend-on-Sea, on January 6th, aged 46.

JAMES CLEVELAND, M.R.C.V.S., Bungay, Suffolk.  
Lond: March, 1874.

Death occurred 18th Jan., at the age of 66.

WILLIAM LITTLE, M.R.C.V.S., Wainfleet, Lincs.  
Edin: April, 1866.

Mr. Little passed away January 12, at 72 years of age

W. R. OWEN WILLIAMS, M.R.C.V.S., G.V.O. Salisbury.  
Rhodesia. L'pool: July, 1910.

Died 16th December, 1918, from pneumonia following Influenza.

Dear Sir,—It is with the greatest regret that I have to advise the death, at the early age of 32, of Mr. W. R. O. Williams, M.R.C.V.S. of the Rhodesia Veterinary Staff.

Mr. Williams died on the 16th inst., from Pneumonia and heart failure resulting from an attack of Spanish Influenza. He was a son of Prof. Owen Williams, Veterinary School, Liverpool University, and a grandson of Principal Williams, New Veterinary College, Edinburgh.

I enclose a cutting from the *Rhodesia Herald* to which it is unnecessary to add except to say that he is a great loss to the profession and to Rhodesia.

Yours faithfully,

Salisbury, G. M. SINCLAIR,  
21st November, 1918. Chief Veterinary Surgeon.

"It will be recalled that Mr. Williams left Salisbury on October 31st for the purpose of inoculating railway employees on the Salisbury-Livingstone section of the B. and M. and Rhodesia Railways and was taken ill at Gwelo. For several days past the news concerning Mr. Williams has been to the effect that he was seriously ill, and doubts were entertained as to his recovery. It was hoped on Friday, that he would have strength to resist the malady, owing to his robust constitution, despite a

message that only the slightest hopes were entertained of his life.

The late Mr. Williams was the District Veterinary Surgeon, Salisbury, having joined the Department of Agriculture in December, 1910. He was a brilliant member of his profession and was exceedingly popular, both among his confreres, and among the farming community; he never spared himself when engaged in the arduous work connected with his office. In Salisbury he was a well-known figure and won the esteem of all who knew him by many kindly acts and sound advice on all matters upon which he was consulted. When the recent influenza epidemic broke out in Salisbury he was among the first to offer his services, and performed yeoman work at the Drill Hall in the first sad days. Afterwards he volunteered to assist in the work undertaken by other devoted citizens at the lazaretto, and in company with the late Mr. Ferguson-Mackeown, he knew no fatigue in his endeavours to alleviate the sufferings of the unfortunate natives stricken with pneumonia. At the end of October, with an improved position at the lazaretto, he willingly accepted this mission to tour the Salisbury-Livingstone section of the railways to inoculate the employees against the dread pneumonia. When he left Salisbury he was not in the best of health, but with his usual bright and hopeful temperament he ignored the signs concerning his own health, being only too ready to suffer himself if he could ensure the health of others. So he reached Gwelo, when he was taken ill and was obliged to enter hospital. He died on Saturday, 16th November. As was said of the late Mr. Mackeown, so it can be said of Mr. Williams, that he laid down his life as the result of unselfish devotion to the natives of Salisbury. With his passing Salisbury is the poorer, but the work he rendered will never be forgotten.

Mr. Williams leaves a widow and two young children to mourn his loss. Mrs. Williams, we understand was called to Gwelo some days previously. We tender to the widow and her little ones, and to the deceased's mother who is in Salisbury, as well as to his relatives generally, our heartfelt sympathy, and express the hope that they will gain some little consolation in their great trouble from the knowledge that he died from the malady contracted during his patient and devoted labours administering to the wants of others.

May he rest in peace.—*The Rhodesia Herald*, Salisbury, Monday, November 18th.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confrmd		Out-breaks	Ani- mals.	Out-breaks	Ani- mals.	Out-breaks	Ani- mals.	Out-breaks	Ani- mals.		Out-breaks (a)	Slaugh- tered.
	Dogs	Other Anmls											
Gr. BRITAIN.													
Week ended Jan. 18	1		8	8	4	15			165	348	22	15	1
Corresponding week in	1918		9	8					132	255	19	13	5
	1917		7	7					97	190	42	38	12
	1916		17	19			2	7	111	294	20	66	238
Total for 3 weeks, 1919	11	2	16	16	8	43			552	1210	61	55	22
Corresponding period in	1918		21	24			1	2	438	920	69	56	19
	1917		47	50			1	1	245	532	101	123	46
	1916		44	46			3	12	291	820	69	233	731

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

‡ Counties affected, animals attacked:—

Board of Agriculture and Fisheries, Jan. 21, 1919

Excluding outbreaks in army horses.

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1595.

FEBRUARY 1, 1919.

VOL. XXXI.

## TEACHERS AS COUNCILMEN.

From time to time members show a tendency to indulge in general disparagement of its Council; and signs of this vagary have appeared lately. In these outbursts we nearly always find strong exception taken to the "over representation" of the schools upon the Council, accompanied by much derogatory criticism of the teacher-legislator. This sort of thing has never yet succeeded in removing the school element from the Council and it will not be to the benefit of the profession if it ever does.

Even were it true—which it certainly is not—that teachers on the Council care for nothing beyond school and examination questions, they would still be indispensable. Matters which profoundly affect the future of the profession are quite as important as anything concerning its present; and the most aggressively "energetic" practitioner can hardly claim that he and his kind are so well fitted to deal with them as schoolmen. Again, the interests of different schools occasionally clash; and it is therefore desirable that each should have at least one representative. These reasons alone render a good school representation imperative; and schoolmen are of value to the Council on quite other grounds.

Supposing that a teacher take a broad view of his responsibilities on the Council and a genuine interest in all branches of veterinary activity, what chance has he of estimating the necessities of the profession? His detractors say "He knows nothing about practitioners and their needs"; but who has greater opportunities of obtaining such knowledge than he? He works in a large city, where he may meet many more veterinary surgeons than are to be met in any country district. Often his work—especially if he be a pathologist or a clinician, brings him into contact with veterinarians much farther afield. Often, also, he keeps in touch with many of his old students; and this in time greatly extends his professional acquaintance. The truth is that hardly any man is so well able to gain a wide and intimate knowledge of the conditions and requirements of the profession as a teacher, especially if in a large school. Compared with his opportunities, those possessed by the great majority of practitioners are insignificant. Add to this the fact that teachers are usually men of more than average natural ability; and it is easy to understand their potency in the Council chamber.

Even those who concern themselves only with their special subjects may do useful work in a restricted but important field. Those who think more broadly—and most do, are among the most valuable men on the Council.

## THE NOMINATIONS.

On page 269 is given the list of nominations to date, which includes the names of three fresh candidates—Messrs. J. Hill, W. Logan, J. Willett—all of whom may be classed as general practitioners, and each best known in his own locality. Both Capt. Hill and Major Logan are at present in khaki, but both hope to be at home again by the time of the election or very shortly after.

## A NOTE ON PIROPLASMOSIS OF THE DONKEY.

Piroplasmosis of the donkey has been recorded as a disease which occurs in various parts of the world. In German East Africa it was recorded by "Schellhase," in 1914 (i).

My experience of the disease has been confined to outbreaks dealt with in the North Nyasa district of Nyasaland and in the Neu Langenburg and Iringa districts of German East Africa.

The disease appears to affect more severely the white "Zanzibar" donkey (the local descendant of Muscat donkey) and crosses of this breed with the native grey donkey. The latter breed shows a high degree of natural resistance, or at least a greater power of natural resistance, the immunity being acquired after a natural infection. This resistance is probably due to the breed being more hardy in every way and better able to withstand the rough conditions of both food and climate met with in this country.

In its most common form the disease runs a chronic course, and parasites are not plentiful in the peripheral blood.

The parasites vary considerably in shape—amoeboid, round, ring, and match-like forms being noted at different times during the course of an acute attack. Pear-shape parasites were rare. Occasionally parasites were seen in pairs, these being either leaf-shaped or match-like forms. In several cases, where the parasites were joined at the extremity away from nucleus, a small granule of chromatin was seen at the point of junction.

The nucleus of the parasite, which is usually towards the periphery in the amoeboid, round, and ring forms is in these cases much smaller than in the pear and match-like varieties of parasite, where it consists of a darkly stained, irregularly rounded mass at one end of the parasite. In all the forms mentioned above, the cytoplasm has a reticulate structure.

No cross forms have been noted in any of the smears taken during the course of any of the above.

mentioned outbreaks. In three cases of acute infection free parasites were seen in the plasma, these being amoeboid and round forms.

The number of parasites varies daily in smears taken in the peripheral blood, and often, even during the course of an acute attack, they may be absent. The heaviest infection noted was 4 p.c., this is, however, exceptionally high. The extent of the infection has no relation to the gravity of the symptoms. In the chronic cases the parasites are often difficult to find, there being, perhaps, not more than half a dozen in a smear.

The smaller round forms of the parasite have the appearance of cocci, it being difficult to differentiate the nucleus from the cytoplasm. These forms are almost invariably placed towards the periphery of the blood corpuscles.

In a number of cases the match-like forms with the darkly stained rounded nucleus at one end, were seen in various stages of longitudinal division, there being a portion of the nucleus in each segment. A common variation of the match-like form is a parasite whose cytoplasm is splaved out in a fan-like manner from the nucleus. A few curved rod-like forms, that have been observed applied to the periphery of the corpuscle, also appear to be a variation of the match-like form.

In one lot of eleven donkeys—one jack and ten females, eight were found to be suffering from the disease and had parasites in the peripheral blood. All these animals were very emaciated, and one died from a secondary infection which resulted in death from pyæmia.

In another lot of eighty odd animals, a mixed troop of breeding animals and their off-spring, up to two and three years olds, the disease in combination with cyclostome infection caused a mortality of 25 p.c. during the course of an observed period of two years. This outbreak was in a low-lying district near the shores of Lake Nyasa, where the greater part of the grazing area was marshy for six months of the year.

Clinically the infected animals, in the chronic form of the disease, show the symptoms of anæmia. The animal is dull, and loses all interest in its surroundings, the mucous membranes are pale, and there is gradual emaciation with progressive weakness. There is no febrile reaction; a high temperature in this form of the disease usually indicates some secondary disease.

During an acute attack the mucous membranes may be at first slightly icteric, later petechiæ become visible, and there is always a rise of temperature to 104 or 105° F. with a quickened pulse. The common complication is broncho-pneumonia, but others, such as pyæmia or septicæmia may follow minor injuries; and pregnant animals often abort.

Piroplasmosis of itself appears rarely to be an actual cause of death, but may reduce the victim's power of resistance to such an extent that it succumbs to any secondary infection.

The period of convalescence is always very prolonged in cases that have once become emaciated, and a great deal of attention to feeding and general hygiene is necessary if the animal is to have a fair

chance to regain its former health. Many animals remain in poor condition, and one is unable to detect any other sign of ill-health. In such cases parasites may be found in the blood but not constantly, and when present there are so few that they are not easily found.

The best results in treatment have been obtained by moving the animals to fresh grazing areas, preferably to another district. Tick infection is, however, the main point to consider in the prevention of the disease, and this can be dealt with by attention to grooming and the application of dressings by hand. A number of the above-mentioned cases were treated by intravenous injections of "Trypanblau"—a 2 p.c. solution in normal saline, without any apparent beneficial result, in doses up to 60 c.c.

J. A. GRIFFITHS.

*Reference.*—(i) Schellhase, W., "Ein Beitrag zur Kenntnis der Piroplasmosi der Schafe und Esel." Reitsch, "Infectionskrank, parasit, Krank u. Hyg. d. Haust," 1914, Feb., Vol. 15, No. 1 (Extracts by "Tropical Vety. Bulletin," June, 1914).

#### A PLEA FOR THE RE-INTRODUCTION OF THE TUBERCULOSIS ORDER.

To those who are interested in the prevention of consumption or tuberculosis, an earnest desire is expressed that they will use all their powers to impress on those in authority, and particularly to approach their respective Members of Parliament of this Order as a by no means negligible effort in the prevention of the disease in mankind, and a step in the prevention of its spread among dairy cattle.

Dr. Noel Badsworth, at the National Federation of Employees Approved Societies, spoke of the prevalence of tuberculosis, stating that more than any other form of illness this disease took its toll of workers in the prime of life. Some idea of the extent of the tuberculosis problem was conveyed by the fact that every year 60,000 deaths occurred from this disease, a number equal to the whole population of Oxford. At this moment there were computed to be a quarter of a million consumptives in the country, the larger proportion of whom were to be found among the working classes. Among the contributory causes of tuberculosis were malnutrition, sweated labour, impure milk, bad housing, overcrowding, and ill-ventilated workshops and workrooms.

Again, Dr. Mitchell, of Edinburgh, cites 72 consecutive cases of tubercular cervical glands in children, and of these 65 (90 p.c.) the organism isolated was of bovine origin, and in 7 (10 p.c.) the human tuberculosis bacillus. In all the cases of bovine tuberculosis the children were fed upon unsterilised cows' milk.

Dr. W. Savage, County M.O.H., Somerset, says that at least 10 p.c. of the market milk contains active, virulent tuberculosis, and that the percentage of tuberculosis in children due to milk is 20 p.c.

This serious condition of affairs is quite com-



prehensible when one reads in the report of the Chief Veterinary Officer of the Board of Agriculture for the year 1914, that from 1st May, 1913, to 30th June, 1914, the returns show 5599 cases in England and Wales of tuberculosis with emaciation in all: this large number of wasters is a great loss to the agriculturists, and, of course, to the State.

A further 1072 cases were diagnosed in life to be giving tubercle-infected milk. On post-mortem examination tuberculosis of the udder was found in 1000 cases. After a period of four and a half years there must again be a number of animals that are daily giving off tubercle bacilli in their milk, infecting a certain proportion of children, whose chief article of diet is cows' milk, and every endeavour should be made to place this food above suspicion.

St. Albans.

G. ELMES, F.R.C.V.S.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### PSEUDO-TUBERCULOSIS OF THE PIG (CASEOUS ADENITIS) AND VISCERAL PSEUDO-TUBERCLES.

Caseous glandular lesions in the form of nodules or more rarely of visceral tubercles, which it is difficult to distinguish from tuberculosis, are frequently found in the pig. Chaussée, in *La Revue de Médecine Vétérinaire* of last year, published the following account of these conditions.

The author relates five cases of this nature, in which inoculation into guinea-pigs proved that the lesions were not bacillary, while the naked-eye examination could give no certainty on the point. These observations enabled him to gain a more exact knowledge of the differential naked-eye characters of the two classes of lesions.

One of these five observations is here given. A pig of fifteen months old, in excellent condition, had both the maxillary glands very slightly hypertrophied. In each of these glands, some fifty caseous points were found. They were hard, had no fibrous envelopes, were of a yellowish cream colour and from one to seven millimetres in thickness. The intermediary glandular tissue was grey, clearly distinct from the lesions, in full vitality, and apparently normal. There were no other visceral lesions. When one of the "pseudo-tubercles" was crushed and microscopically examined, no tubercle bacilli were discovered. The inoculation of guinea pigs confirmed the non-tubercular nature of the condition.

This example and the other cases reported by the author show that nodular caseous non-tubercular lesions of the lymphatic glands exist fairly frequently in the pig. Their differentiation from tuberculosis is not always easy, and is based upon the following characters.

The non tubercular nodules are not regularly spherical, and have no fibrous envelope. Their caseation is complete and uniform, dry, and with calcification. Their colour is that of gum, or greenish.

In the lesions due to Koch's bacillus the nodular

form is rare in the glands of the pig. Glandular tuberculosis is generally of the hypertrophic type, with complete or incomplete degeneration in the form of masses extended over the whole of the major part of the gland. If these tuberculous lesions are of some months standing, the viscera are usually affected by generalisation; while in "pseudo-tuberculosis" they are generally intact. In one of the author's cases of "pseudo-tuberculosis," however, tubercles were found in the lung and the liver; but these were much harder and more calcified than lesions due to the tubercle bacillus. In cases in which tuberculosis and "pseudo-tuberculosis" co-exist the double diagnosis may be difficult; but to recognise the presence of tuberculosis is sufficient.

The lesions of this "pseudo-tuberculosis" are easy to distinguish from parasitic tubercles of the liver—echinococci, and cysticerci.

Not having been able to make the necessary cultivations and inoculation, the author has not investigated the cause of this porcine "pseudo-tuberculosis." He regards the lesions as probably caseous sequestra, due to a previous benign infection of the digestive apparatus. His sole object in publishing his article is to show that it is necessary in practice to know that these lesions exist, and to distinguish them from tuberculosis due to Koch's bacillus.—(*Revista de Higiene y Sanidad Pecuarias*).

##### FIBROMA OF THE TESTICLE IN DOMESTIC ANIMALS.

R. Galli, in *Il Nuovo Ercolani* of 1913, published an article on this subject which is of some interest from the great rarity of fibromata of the testicle in animals, and from the fact that it records three characteristic cases.

The fibromata are benign tumours. They vary in size from that of a pea to a man's fist, and present a small lobulated surface. They are movable and hard; and sometimes they are not uniform. Sections show a shining aspect, a compact texture, a white or yellowish colour, and a periphery which is rounded or has more or less pronounced excrescences. There may be calcified or ossified zones in which the sectioning knife encounters great resistance. On account of the compression caused by these tumours, the tissues constituting the scrotal diverticula tend to excoriation and ulceration. Fibromata grow slowly, and attain a great size. They sometimes undergo sarcomatous transformation, and may then grow rapidly.

Of the author's three cases, the first was in an old ass, the second in a young ass, and the third in an old horse. Very clear and demonstrative microscopic preparations were obtained by staining sections by Van Geissen's method. In all the cases, the typical texture of the fibroma was observed.—(*Revista de Higiene y Sanidad Pecuarias*).

BROAD—NORWOOD. On Tuesday, January 14th, at the Conisbrough Parish Church, Dorothy Mary Norwood, elder daughter of Mr. W. Norwood, M.R.C.V.S., and Mrs. Norwood, of High Street, Conisbrough, was married to Capt. Gerald Herbert Broad, M.R.C.V.S., R.A.V.C., elder son of Mr. Alfred Broad, F.R.C.V.S., and Mrs. Broad, of St. John's Wood, London.

## Royal College of Veterinary Surgeons.

### SPECIAL MEETING OF COUNCIL.

A Special Meeting of Council was held at 10 Red Lion Square, London, W.C. 1, on Friday, January 24th, when the following members were present:—Messrs. G. A. Banham, W. F. Barrett; Sir John M'Fadyean; Messrs. J. McKinna, T. S. Price; Prof. E. S. Shave; Mr. S. H. Slocock.

In the absence of the President, Mr. J. McKinna, Vice-President, was appointed to the Chair.

The minutes of the previous meeting having been published, were taken as read, and confirmed.

Letters of apology for absence were received from Messrs. F. W. Garnett, W. J. Mulvey, Abson, Bradley, Gaiger, Lawson, Packman, Thomson, and Wilson.

#### BYE-LAWS.

On the motion of Mr. Barrett, seconded by Sir John M'Fadyean, it was resolved: That the following additions to Bye-law 61, passed at the Special Meeting of Council on the 10th January, be confirmed:

After the first clause to add the words, "together with a copy of his birth certificate."

"In any special circumstances arising in connection with the war, exemptions or other concessions may be granted by the Council on the recommendation of the Examination Committee to any person who has served in His Majesty's Forces since the 3rd day of August, 1914."

On the proposition of Mr. Barrett, seconded by Prof. Shave, it was resolved: That the following alteration to Bye-law 62a, passed at the Special Meeting of Council held on January 10th, be confirmed:

(1) A student who has obtained a degree in Arts, Science, or Medicine, or a degree or diploma in Agriculture granted by a University situate within the United Kingdom, or by any other body whose degree or diploma in Agriculture is approved for the time being by the Council, on the recommendation of the Examination Committee, or the Diploma of Licentiate of one of the Royal Colleges of Surgeons, or of one of the Royal Colleges of Physicians, and who in procuring such degree or diploma passed an examination in Chemistry and also in Biology, Zoology, or Botany, shall be exempted from the A or first professional examination, and the bye-laws and regulations in respect thereof, and shall be entitled in all respects to the rights and privileges which the passing of such examination ordinarily confers, provided always that such student so exempted shall be examined in the whole subject of Anatomy in the Class B examination.

(2) A student possessing a degree or diploma of a like import or denomination to one of those enumerated in paragraph (1) hereof, but granted by a University or other examining or licensing authority other than those mentioned in paragraph (1) shall, if the Council declare its sufficiency for exemption, thereupon become entitled in all respects to such exemptions, rights and privileges as are defined in paragraph (1) of this bye-law."

On the motion of Mr. Barrett, seconded by Mr. Price, it was resolved: That the Seal of the College be attached to the above alterations to Bye-laws.

#### REPORT OF EXAMINATION COMMITTEE.

The following report of the Examination Committee held earlier in the day was received and adopted:—

*Chairman.* In the absence of the Chairman, Mr. Slocock was appointed to the Chair.

The minutes of the previous meeting having been approved by the Council, were taken as read, and confirmed.

*Preliminary Examinations.* The following applications for exemptions were received:—

1757. H. DAVIES. Private, Agricultural Coy., 2 years' service. College of Preceptors Junior, Sept., 1915—English, Maths., Welsh; June, 1916—Geography, Latin.

1768. W. H. W. BAIRD. Lieutenant, 2½ years' service, Scottish Leaving Certificate (except Latin). Testimonial from Headmaster.

1769. E. J. MULLANE. Pilot, R.A.F., 1½ years' service. Testimonial from Headmaster.

1770. J. R. MORISON. Sergt. A.O.F., 1½ years' service. Mentioned in Orders. Discharged unfit. Testimonial from Headmaster.

1772. E. E. SCOTT. Lieut. (Hon.) R.A.V.C., 4 years' service. Testimonials from Col. Rainey, Capt. Metton, and Headmaster.

1773. G. FRAZER. Private, 2½ years' service. Scotch Educ. Dept. Intermediate (English, Maths., French, Science, Drawing). Testimonial from Headmaster.

1774. E. HAZELTON. Trooper, 5th Reserve Cavalry, 2½ years' service.

1778. D. J. ANTHONY. Lieut. Royal Welsh Fusiliers, 3 years' service.

1779. O. C. ROGERS. Bombardier, R.G.A., 3½ years' service.

It was resolved to recommend: That the applications be acceded to; but that in cases 1774, 1778, 1779, the exemption be conditional upon the production of a satisfactory testimonial as to general education.

#### Special Cases.

1776. R. M. C. GUNN. Staff Farrier Sergt. R.A.S.C., 3 years' service. B.Sc. Agriculture (Sydney), applies for exemption from Prelim. and part of First years' course.

1777. A. F. FLOOD. Sergt. A.A.V.C., 4 years' service. Diploma in Agriculture, Dookie Agric. Coll., Australia. Testimonial from Headmaster of Westminster City School. Applies for exemption from Prelim. and also from part of First year's course.

It was resolved to recommend: That Mr. R. M. C. Gomm and Mr. A. F. Flood be exempted from the Preliminary examination, and also from the first professional examination, on the understanding that the whole subject of Anatomy be taken at the Class B examination.

#### Applications from demobilised Veterinary Students.

A. HOUSTON. Class B student. Passed A Dec., 1916, without Anatomy. Applies to take Class B in July, 1919, together with Junior Anatomy.

E. D. SEWELL. Lieut. W. Yorks Regt., 4½ years' service. Failed D for fourth time, Dec., 1908. Applies to be allowed to return and take D examination in July, 1919.

A. A. EVANS. Class C student. Applies to take C, July, 1919.

The above applications were acceded to.

*Class B Students.* Applications were received from several students in Class B, who had been recently demobilised, for permission to take the Class B examination in July, 1919.

It was resolved to recommend: That the applications be acceded to.

*Women Students.* An application was submitted from Miss E. G. Knight (Diploma in Agriculture, Reading), for admission to the examinations for the Diploma of M.R.C.V.S.

It was resolved: That the Secretary be instructed to inform the applicant that the College does not possess the power to admit women to the examinations for the diploma of Membership.

**Colonial Graduate.** An application was received from Capt. J. B. Leitch, for exemption from Classes A, B and C, and to be admitted to the Final examination after attendance for one session at an affiliated Veterinary College. Capt. Leitch holds a Diploma of Bachelor in Veterinary Science of the University of Melbourne, and served as Veterinary Officer in the South African War, 1900-1902, and again in the European War, 1915-19.

It was resolved to recommend: That the application be acceded to.

#### PARLIAMENTARY BILLS.

The Secretary was authorised to enter into a contract with Messrs. Wyman and Son for a supply of all public Bills submitted to Parliament at an annual cost of £4 10s., and also to make arrangements with Messrs. Sherwood for the inspection of all private Bills, and the report to this College of any matters of interest to the profession.

A vote of thanks was accorded to the Vice President, and the meeting terminated.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

(In each case the amount subscribed is £1 1s., except where otherwise indicated).

W. Ackroyd, Halifax (£1)	C. St. J. F. Macartney,
N. Almond, Kingston-on-Thames	Capt. R.A.V.C.
W. Ascott, Major R.A.V.C.	F. Marks, Capt. R.A.V.C.
R. M. Bamford, C'n R.A.V.C.	R. Mason, Helmsley
J. Barr, Acle, nr. Norwich	H. Morphew, Loxwood
P. G. Bond, Plymouth	H. J. Parkin, East Ham
W. H. Bloye, Plymouth	J. G. Parr, Leicester
M. Bray, King's Lynn	J. Paton, Stevenage
N. Brear, Capt. R.A.V.C.	W. Pauer, Blackwater
W. Brown, Aberdeen	E. M. Perry, Lt-Col R.A.V.C.
H. Buckingham, Norwich	H. Pollard, Wakefield
J. Clarkson, Garforth	J. W. Froctor, C'n R.A.V.C.
W. A. Clifford, St. Leonards-on-Sea	W. D. Rees, Trealan
R. Cockburn, Eastwood, Notts.	H. A. Reid, Lt-Col R.A.V.C.
A. Cornish Bowden, Beckenham	T. O. Richardson, Tarporly
W. R. Davis, Enfield, N.	H. K. Roberts, C'n R.A.V.C.
H. J. Dawes, W. Bromw'h	E. A. Rucker, Esher
G. R. Dudgeon, Sunderland	G. C. Sharpe, M.C., Capt. R.A.V.C.
J. Dunstan, Liskeard	C. W. B. Sikes, Maj. R.A.V.C.
Prof. S. H. Gaiger, Glas.	S. L. Slocock, M.C., Capt. R.A.V.C.
G. H. Golding, Eastbourne	E. T. Stanley, London, S.E.
W. Hill, Capt. R.A.V.C.	H. P. Standley, Norwich
J. T. Holmes, Bourne	J. W. Sugden, Southmins'r
F. Kerr, Dublin	P. Vincent, Romford
C. J. R. Lawrence, Capt. R.A.V.C.	H. H. Whitlamsmith, London, S.E.
G. Lockwood, Peterboro'	A. E. Willett, Capt. R.A.V.C.
	W. Woods, Wigan
	W. R. Wright, Sidmouth
	J. B. Young, Braintree

56 13 0

Previously acknowledged 467 3 0

£523 16 0

An Army Council instruction just issued states that the landing of dogs in Ireland from Great Britain and the Channel Islands has been totally prohibited until further notice.

#### NOMINATIONS FOR ELECTION TO COUNCIL, JUNE, 1919.

##### Eight Vacancies.

Candidates.	Proposers.
BRADLEY, O. C., Edinburgh	J. Abson, H. Sumner
GAIGER, S. H., Glasgow	S. Stockman, P. Wilson
HAMILTON, D., Hamilton	O. C. Bradley, P. Wilson
HILL, J., Llanelly	D. G. Davies, J. F. Rees
LAWSON, A., Manch'r	F. W. Garnett, J. W. Brittlebank
LOGAN, W., Inverness	R. H. Stordy, L. L. Dixson
MALE, G. P., Reading	G. A. Banham, J. C. Coleman
STOCKMAN, S., London	F. W. Garnett, R. C. Trigger
WHARAM, S., Leeds	S. E. Sampson, J. Clarkson
WILLETT, J., London	J. T. Share-Jones, H. Sumner

#### VICTORIA VETERINARY BENEVOLENT FUND

A special meeting of the Council of the Fund was held at 10 Red Lion Square, London, W.C., on Friday, 24th January, 1919, when the following members were present:—Mr. S. H. Slocock, President, in the Chair, Messrs G. A. Banham, W. F. Barrett, F. L. Gooch, T. S. Price, Sir J. M'Fadyean, Prof. G. H. Wooldridge, Mr. W. Jackson Young, Mr. G. Thatcher, Solicitor, and Messrs P. J. L. Kelland, and F. Bullock, Honorary Secretaries.

The minutes of the previous meeting were read and confirmed.

Apologies for absence were received from D. Bradley, Mr. H. J. Dawes, Mr. E. A. West.

**Incorporation.** The Solicitor reported that the Board of Trade had signified that no objection would be raised to the incorporation of the Fund, with the omission of the word "Limited" from the title. It was thereupon agreed that all members present should sign the Memorandum and Articles of Association, and this was done, the signatures being witnessed by the Solicitor.

The Solicitor reported that the Executors of the late Dr. Stephenson had decided to take the opinion of the court whether the Armstrong College is entitled to participate in the residue of the estate, and that they had asked that the Fund should be appointed to watch the interests of the other residuary legatees (including itself), the costs to come out of the residuary estate.

On the proposition of Mr. Barrett, seconded by Sir J. M'Fadyean, it was resolved that full authority be given to Mr. Thatcher to act for the Fund in the matter, with instructions to consult Counsel if necessary, it being understood that the litigation involved no expense to the Benevolent Fund.

**Investment of Funds.** On the proposition of Mr. Price, seconded by Mr. Young, it was resolved that the whole of the money received in respect of the Stephenson Bequest be invested in 5% War Loan, 1929-47.

**Office Equipment.** On the proposition of Mr. Barrett, seconded by Mr. Banham, it was resolved that a Card Index be purchased at a cost not to exceed seven guineas. Authority was also given to obtain a Roll-top Desk at a cost not to exceed ten guineas.

A lady of Godstone, Surrey, has recovered her wedding ring which disappeared five or six years ago while she was feeding a calf. It was thought the animal had swallowed the ring, and, as it could not be found, the calf became known as "The Golden Cow." A few days ago the cow was purchased by an Oxted butcher, who remembering the lost ring, made a search, and discovered it embedded in an internal organ.—*Daily Telegraph*, January 30th.

**The R.A.V.C. Comforts Fund.**

Dear Sir,—The Committee, R.A.V.C. Comforts Fund once more ask you to be good enough to publish the enclosed list of subscriptions to the Fund.

The total collection of £132 15s. 6d. is entirely due to Lt.-Col. J. W. Brittlebank, C.M.G., who has found time to raise this very satisfactory and substantial sum during the past few months in the Western Command, and the thanks of the Corps are due to him and to all those who have so kindly and helpfully responded to his appeal.—Yours faithfully,

E. A. BLENKINSOP.

29/7 Bramham Gardens, S.W.  
27th January.

Collected by Lt.-Col. J. W. Brittlebank, C.M.G., D.D.V.S.,  
Western Command, Chester.

Maj. Bogue, R.A.V.C.	£2	2	0
per Maj. Bogue, No. 7 Reserve			
Vety. Hosp. H'qtrs	£1	10	6
"A" Sub-division	2	5	0
"B" "	1	18	3
"C" "	1	1	0
"D" "	1	3	5½
"E" "	1	4	0
"F" "	1	11	3½-10 13 6
Capt. Gryspeerdt, R.A.V.C.		2	2 0
per Capt. Gryspeerdt, H.C. Div. V. Hpl.		5	0 0
Capt. Sherriff, R.A.V.C.		1	0 0
per Capt. Sherriff—			
Belfast Steam Ship Co., Ltd.	1	1	0
Dundalk and Newry Steam			
Steam Packet Co., Ltd.	3	3	0
Leyland Line	5	0	0—9 4 0
Capt. Berry, R.A.V.C.		10	0
per Capt. Berry—			
R. H. Berry, Esq.	1	0	0
F. B. Hodgkinson, Esq.	10	0—1	10 0
Cpts. R.A.V.C.—			
E. Patrick		1	1 0
F. C. Golden		10	6
M. Cunningham		1	1 0
F. E. Jones		1	0 0
S. Robson		1	0 0
A. C. Piesse		1	1 0
B. J. Rees		1	1 0
R. Hayes		1	1 0
Lieuts. R.A.V.C.—			
R. W. Down		1	0 0
L. W. Wynn Lloyd, Carnarvon		10	6
Capt. P. M. Evershed, R.A.V.C.		1	0 0
per Capt. Evershed—			
Frank Bibby, Esq.	2	0	0
Col. Hunt		10	0
C. H. Knill, Esq.	1	0	0
W. Phillips, Esq.	2	2	0
Lieut. W. Phillips	1	1	0
Miss Phillips	1	1	0
P. Phillips	10	0	
R. H. Simpson	10	0	
R. Jarvis	5	0	
Anonymous	3	6	
Bowdler	2	0	
Anonymous	12	6	
J. Smith	5	0	
C. Evans	1	0	
R. W. Parry	5	0	
E. Powell	2	0	
R. H. Castle	5	0	
R. S. Castle	5	0	

R. J. Mortimer	5	0	
Mrs. Richards	2	6	
J. Keyworth	10	6	
Bradley	2	0	
W. Newhood	2	0	
W. Needham	1	0	
Mrs. Evans	2	6	
P. G. Phillip	5	0	
T. W. Johnson	10	0	
J. Davenport	10	0	
J. T. Williams	10	0	
J. Goliah	5	0	
Miss Ibb	10	0	
A. Sevinge	2	0	
A. Marlow	2	6	
J. Downing	2	6	
J. Gregory	1	0	
A. Moore	2	0	
Miss Everill	2	6	
G. Newhood	1	6	
Mrs. Corbet	1	0	0
V. Hirst	1	0	0
Sgt. H. Lee, R.A.V.C.	2	6	
Sgt. O'Leary, R.A.V.C.	2	0—17	14 0
Capt. Cosgrove, R.A.V.C.		1	1 0
per Capt. Cosgrove, Kinnel Pk. Camp—			
53rd Cheshire Regt.	1	10	0
16th Officer Cadet Battn.	2	5	0
53rd Manchester Regt.	2	2	0
490th Co., A.S.C.	1	0	0
RAR., RE., Beaumaris,			
per Lt. Hennings	3	10	0
53rd S.W.B.	2	0	0
53rd Welsh Regt.	1	0	0
Capt. W. F. Cornewall	10	0	
" Long Price	5	0	
" W. Gage	5	0	
" H. A. Houghton	3	0	
" R. G. Rees	5	0	
" R. W. Gossage	10	0	
Lieut. T. F. Wood	5	0	
" R. R. Nicholas	2	6	
Anonymous	10	0	
Sgt. E. Hope, R.A.V.C.	5	0—16	7 6
H. G. Hewetson, Southport	1	1	0
H. G. Rogers, Bootle, Liverpool	2	2	0
per H. G. Rogers—J. Jarvis & Sons, Ltd.	5	5	0
Edward L. Butters, Liverpool	1	1	0
W. L. Cockburn, Liverpool	2	2	0
R. Craig Robinson, Carlisle	2	2	0
Edward H. Curbishley, Alderley Edge	10	6	
Chas. Blackhurst, Preston	1	1	0
Richard Hughes, Oswestry	1	1	0
Peter Gillespie, Salford	1	1	0
Peter Taylor & Son, Manchester	1	1	0
Robert Ward, Manchester	1	1	0
Edward F. Wood, Hooton	1	1	0
W. Noar, Bury	10	6	
F. G. Edwards, Chester	2	2	0
Thomas Wilson, Nantwich	2	2	0
John R. Carless, Shrewsbury	2	2	0
Fred W. Watchorn, Newtown	1	1	0
A. M. Michaelis, Stockport	2	2	0
Alex Lawson, J.P., Manchester	1	1	0
Wm. Woods, Wigan	1	1	0
O. A. Ducksbury, Lancaster	1	1	0
John Holroyd, Blackburn	2	2	0
James Storrar, Chester	2	2	0
Tedbar Hopkin, Manchester	2	2	0
J. & H. Sumner & Sons, Liverpool	2	2	0
J. W. Bate, Sutton Weaver	5	0	0
T. O. Richardson, Tarporley	10	6	
W. J. Fletcher, Wrexham	1	1	0

	Brt. fwd.	£126	1	6
R. Shepherd, Middlewich		1	0	0
F. Ball, Ormskirk		1	1	0
R. Morris, Chester Remount Depot		5	0	0
Sgt. H. Waring, R.A.V.C.		5	0	0
Maj. W. Jowett, R.A.V.C.		1	0	0
Lt.-Col. J. W. Brittlebank, C.M.G.		3	3	0
		£132	15	6
Amount published Nov. 23		894	12	7
Jan. 11, per Messrs. J. Ewing Johnston and F. W. Brittain (Ballot at Belfast)	...	1000	0	0
Jan 25, list published	...	46	10	6
Total published to Feb. 2		£2073	18	7

## ARMY VETERINARY SERVICE

## HONOURS AND REWARDS.—FRENCH.

The following Foreign Decoration has been bestowed :—

MEDAILLE DE LA RECONNAISSANCE—3rd Class.

Major W. ASCOTT, O.B.E., D.A.D.V.S., 56th Division.

War Office, January 22.

The following dispatch has been received by the Secretary of State for War :—

General Headquarters, Oct. 23, 1918.

My Lord,—I have the honour to forward herewith a list of officers whom I consider worthy of mention for their services during the period from March 16, 1918, to September 18, 1918.

I have the honour to be, my Lord, your Lordship's most obedient servant,

E. H. H. ALLENBY, General-Commanding-in-Chief,  
Egyptian Expeditionary Force.

## STAFF.

\* \* \* \* \*

Maj. (actg. Lt.-Col.) E. P. Arzyle, D.S.O.; Capt. (actg. Maj.) V. A. Barrum, O.B.E. (T.F.); Capt. (actg. Lt.-Col.) W. J. Dale, O.B.E.; Capt. (temp. Maj.) A. C. Duncan, F.R.C.V.S. (T.F.); Capt. and Bt. Maj. (actg. Lt.-Col.) G. E. Tillyard, O.B.E.; Maj. (temp. Col.) A. G. Todd, C.B.E., D.S.O..

Temp. Capt. A. Carter; Temp. Capt. J. N. Ellah; Temp. Qrmr. and Lieut. W. Hollis; Temp. Capt. W. K. Johnstone; Temp. Capt. Z. B. Rutherford; Temp. Capt. (actg. Maj.) G. Sutton, F.R.C.V.S.; Capt. G. E. Henson, (T.F.); Capt. (actg. Maj.) R. B. Palmer, M.C., (T.F.).

Aust. A.V.C.—Maj. (temp. Lt.-Col.) J. K. Kendall, O.B.E.  
N.Z.A.V.C.—Capt. R. P. Jones, attd. S.A.F.A.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL. Jan 23.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.  
Temp. Lt. to be temp. Capt. :—C. S. Conder (Jan. 8).

Jan. 24.

Temp. Capt. L. Mitchell relinquishes his commn. on acct. of ill-health contracted on active service (Jan. 25), and retains the rank of Capt.

Temp. Lts. to be temp. Capts. :—J. A. A. Houde (Dec. 8, 1918); T. A. Shaw, A. N. Metcalfe, J. Litt (Jan. 10); R. Beattie (Jan. 11).

Jan. 25.  
Maj. A. England, Res. of Off. relinquishes actg. rank of Lt.-Col. on ceasing to be empld. (Jan. 15), and retains rank of Lt. Col.

Temp. Lieut. J. E. Cockcroft relinquishes his commn. (Jan. 26).

Jan. 27.

Capt. and Bt. Maj. G. E. Tillyard relinquishes the actg. rank of Lt.-Col. on ceasing to be empld. as A.D.V.S. (Sept. 11, 1918), when he reverts to the actg. rank of Maj. as D.A.D.V.S.

Jan. 29.

Temp. Capt. A. W. Shilston relinquishes his commn. on ceasing to be empld. (Oct. 9, 1917), and retains rank of Captain.

Jan. 24.

CAN. A.V.C.—Temp. Capt. W. M. Parsons relinquishes his commn. (Jan. 11).

## TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Jan. 23.

Capt. J. F. D. Tutt relinquishes his commn. on acct. of ill-health (Jan. 24), and retains the rank of Capt.

## OBITUARY.

WILLIAM STANLEY CARLESS, M.R.C.V.S., The Butts, Worcester, Capt. R.A.V.C.

Graduated, Lond : April, 1878.

Capt. Carless' death occurred suddenly at Sheringham, whilst on active service, on Dec. 18, 1918, aged 61.

G. C. TAYLOR, M.R.C.V.S., Nottingham, Lieut. R.A.V.C.  
Lond : July, 1916.

Death resulted from wounds, 6th October, 1918.

## The late Mr. Harvey du Cros.

The death has taken place suddenly from heart failure of Mr. Harvey du Cros, M.P. for Hastings 1906-8, who took a prominent part in the early development of the pneumatic tyre industry. Born in 1846, the son of Edouard Pierre du Cros, of County Kildare, he came of an old Huguenot family which, having been driven from France settled in Ireland. It was in 1888 that Mr. J. B. Dunlop, a Belfast veterinary surgeon, reinvented Thomson's forgotten tyre. At that period cycling was exceedingly popular in Ireland, and among its keenest followers in Dublin were Mr. Harvey du Cros and his six sons, who had for years been conspicuously identified with sports and athletics. They were among the first to recognise the merits of the Dunlop tyre, and Mr. Harvey du Cros formed a company in Dublin in 1889, with a capital of £15,010, to carry on the manufacture. In that year his son, Mr. (now Sir) Arthur du Cros, was not allowed to ride a pneumatic-tyred safety bicycle in the race for the Surrey Cup at the Oval, but in the following year he and a party of Irish racing amateurs carried all before them on the English tracks. There was an immediate demand for the new tyres, but the discovery of the existence of the 1846 Thomson patent led to long litigation. The acquisition by the company of the Welch and Bartlett patents overcame many difficulties and the business proved so successful that in 1896 it was sold for £3,000,000 to a company of which Mr. Arthur du Cros became managing director and his father chairman. Mr. du Cros was elected in 1906 as Conservative member for Hastings, and sat till 1908, when he was succeeded by his son Arthur.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax.		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Jan. 25	3		1	1	4	27			167	378	20	17	8
Corresponding week in	1918		9	10			1	1	173	327	25	15	5
	1917		9	10			2	2	88	176	40	36	17
	1916		12	12			1	1	98	285	18	81	313
Total for 4 weeks, 1919	14	2	17	17	12	70			719	1588	81	72	30
Corresponding period in	1918		30	34			2	3	611	1247	94	71	24
	1917		56	60			3	3	333	708	141	159	63
	1916		56	58			4	13	389	1085	87	314	1044

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Jan. 28, 1919

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND.	Week ended Jan. 18	...	...	...	...	...	...	Outbreaks	16	1	...
		...	...	...	...	...	...	1			
Corresponding Week in	{ 1918 ... 1917 ... 1916 ...	...	...	...	...	...	...	3	17	1	1
		...	...	...	...	...	...	1	13	3	7
		...	...	...	...	...	...	1	17	2	...
Total for 3 weeks, 1918		...	...	...	...	...	...	7	42	4	13
Corresponding period in	{ 1918 ... 1917 ... 1916 ...	...	...	...	...	...	...	11	43	1	1
		1	1	...	...	...	...	2	54	9	48
		1	5	...	...	...	...	5	44	11	29

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Jan. 20, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

IRELAND.			Week ended Jan. 25					Outbreaks				
			...	...	...	...	...	...	2	15	1	...
Corresponding Week in	}	1918	...	...	...	...	...	...	3	7	...	...
		1917	...	...	...	...	...	...	3	13	3	18
		1916	...	...	...	...	...	...	4	21	2	7
Total for 4 weeks, 1919			...	...	...	...	...	...	9	57	5	13
Corresponding period in	}	1918	...	...	...	...	...	...	14	50	1	1
		1917	...	1	1	...	...	...	5	67	12	66
		1916	...	1	5	...	...	...	9	65	13	36

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Jan. 27, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

## Inquiry on Anthrax.

The work of the Departmental Committee on Anthrax is being extended to an inquiry into the subject of horse hair and anthrax. They have been instructed to make experiments in disinfecting main and tail hair. The Secretary of the Committee, Mr. A. E. Duckering, with Dr. Eurich and Mr. Wm. Mackinder have been appointed a sub-committee to conduct the experiments and to report to the Committee. The purpose of the Committee will be to discover whether the process of disinfection can be applied mechanically and on commercial lines. Certain firms in the Bradford district are to be approached with the view to their giving permission for the carrying out of the experiments.

According to a report presented to the Committee observation extending over a period of nine months showed that 19 cases of anthrax were due to infection by horse hair, and these were not the whole of the cases arising out of the manipulation of this material. The chief place of origin of anthrax-infected horse hair is China, where there appears to be no attempt at disinfection—*Bradford Daily Argus*.

## Parasitic Mange Prosecution.

At Bow Street Police Court on 29th inst, Frederick Byles, of Plough Yard, Curtain Road, Shoreditch, was ordered to pay fines and costs amounting to £34 for failing to notify the police that he had in his possession a horse suffering from parasitic mange, for causing it to be driven on a public highway, and for causing it to be worked while in an unfit state.

Sir Stewart Stockman, Chief Veterinary Officer to the Board of Agriculture, says:—"Horse owners ought to treat their horses for the prevention and cure of external parasitism as farmers treat their sheep, and do it of their own accord. They should feel it a disgrace to their horsemanship to have parasitized horses."

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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## CONTAGIOUS DISEASE.

In last week's issue a plea was advanced by Mr. G. Elmes for the re-introduction of the Tuberculosis Order. Doubtless this is urgently needed; but whether it is practicable is a more open question. Just now the whole island is grievously undermanned with veterinary surgeons, especially in country districts. In addition, veterinary responsibilities are increasing, and will continue to increase for some time.

We know that a considerable rise in equine contagious disease in consequence of demobilisation is practically certain. That alone may overstrain an already hard-worked profession. Moreover, rabies and foot-and-mouth disease are threatening us daily; and at any time may become widely dispersed. Foot-and-mouth disease in particular might find too few veterinary surgeons in the country to deal with it effectively.

No doubt the Board will re-impose the Tuberculosis Order the moment they believe it can be satisfactorily worked. We have never been threatened with such an amount and variety of contagious disease; and just now we are certainly numerically insufficient to deal with its possibilities. The conditions of the country as a whole and its veterinary resources are probably well understood at the Board; and we may expect energetic action to be taken as soon as possible. There is an immense amount of work waiting to be done against tuberculosis and several other diseases; but it is doubtful whether much more than we are doing already can be attempted until the veterinary forces of the Kingdom are brought back into line for civil work.

## THE NOMINATIONS.

Since the list appeared in our pages last week, the names of two fresh candidates, and of two others for re-election have been added, so that there are now fourteen candidates for eight vacancies. Of the two new men, the best known probably is Prof. Craig, of Dublin. As a skilled anatomist he is known throughout the profession, and for years past he has taken an active part in the large and influential association, the V.M.A. of Ireland, which includes the leading practitioners of Dublin and neighbouring counties. Mr. J. B. Tutt is a practitioner of standing who is well-known in the South of England, and has frequently given his support as a practitioner in questions of professional interest.

The list to date will be found on another page.

## THE BIOLOGICAL CYCLE OF THE ASCARIS LUMBRICOIDES AND ALLIED FORMS.

B. H. Ramson and W. D. Foster have published an article upon this subject (*Bull. Ist. Inst. d'Agr.*). The biological cycle of the *A. lumbricoides*, the common intestinal round-worm of man, and of *A. suum* or *A. suilla*, very common in the intestine of the pig, has recently been studied by F. H. Stewart of the Indian Medical Service. Despite their different names, these worms are the same parasite, or else are so closely alike that they cannot be distinguished morphologically. The general opinion is that the infection of man or of the pig with *Ascaris* results from ingestion of the eggs of the parasite, but Stewart's researches led him to the conclusion that it is necessary that the eggs should first be ingested by rats or mice, that in these hosts the embryos issue from the eggs, and undergo some migrations and transformations inherent to their development, till, passing into the faeces or saliva of the mice or rats, they contaminate fodder or other material eventually ingested by man or by the pig, which constitute the final hosts. Ramson and Foster have reviewed the repeated experiments of Stewart, and from them, from those of other workers, and from their own, they reach the following conclusions:—

The development of *A. lumbricoides* and forms closely related to it is direct, and does not necessitate an intermediate host. The eggs, when ingested, open in the gastro-intestinal tube; the embryos, however, do not at once take up a residence in the intestine, but migrate to various other organs, among which are the liver, spleen, and lungs. In the case of the *ascaris* of the pig, the migratory larvæ may be found in the lungs within a week, and meanwhile have undergone considerable development and growth. From the lungs the larvæ migrate into the trachea, and thence into the œsophagus by way of the pharynx. This migration into the trachea may be verified in pigs, as also in artificially infected mice and rats, only a week after infection. Reaching the intestine a second time after their passage through the lungs, the larvæ, if in a host adapted to them, presumably settle in the intestine and complete their development until maturity is reached. If in a host not adapted to them, such as the mouse or rat, they quickly pass out of the host with the faeces.

Serious invasions of the lungs by *Ascaris* larvæ produce grave pneumonias, which often have fatal results in mice and rats. This cause appears to have induced death in a sucking-pig one week after being made to ingest many *Ascaris* eggs. It is not improbable that pulmonary diseases in babies, suck-

ing pigs and other young animals, may often be attributable to ascarides. The fact that the larvæ invade the lungs, as also other organs, in addition to the gastro-intestinal tube, and may cause a serious and even fatal pneumonia, indicates that these parasites have a greater pathogenic capacity than has hitherto been supposed.

Age is a very important factor in determining the susceptibility to infestation by ascarides; and the susceptibility diminishes greatly as the age of the host advances. This accords with the well known fact that infection by *Ascaris* is especially common in babies and sucking animals, while it is comparatively rare in men and in adult swine.—(*La Clinica Veterinaria*).

#### THE WORK OF THE BRITISH ARMY VETERINARY CORPS AT THE FRONTS.

By Maj.-Gen. Sir FREDK. SMITH, K C M.G., C.B., F R C V.S.  
(Reprinted from the *Journal of the Royal Society of Arts*)

When invited to deliver an address on the Veterinary Service in War, I doubted the necessity for so doing, for the subject had already been dealt with by Capt. Fairholme in 1915, by Lt. Col. Rainey of the Army Veterinary Service in 1917, and by Capt. Galtrey of the Remount Service in 1918. To Capt. Fairholme and Galtrey my Corps is indebted for their appreciative criticisms, while the public is under the obligation of receiving from their pens a picture of the veterinary care of animals in war which must have come as a revelation in humanity and organisation.

The popular conception of the Veterinary Service in war, prior to 1914, was not very creditable to human intelligence. I well remember a scientific friend expressing surprise that any organisation for the care of sick and wounded animals in war was necessary or practicable; he had a notion that something might be done for them during peace, but in the complexity of events associated with war nothing of a practical nature was possible, and the animals must be left to chance. Perhaps there were others of equal mental ability who thought the same, while it is certain that to the public generally the idea of any special organisation for the veterinary care of animals in war was altogether unknown. One of the objects of this paper is to show that the conservation of animal life in war is of paramount importance. It has not always been so regarded; up to and including the war in South Africa the history of the veterinary care of Army animals is sad reading, a story of suffering, misery and losses which can only fittingly be described as appalling. Humanitarian, and perhaps also financial, considerations are responsible for the change which has been wrought during the past sixteen years. I should not like it to be thought that the Veterinary Service was in any way responsible for this indifference. The veterinary reports furnished after every campaign for generations past dwelt upon the absence of all arrangements for the care of the sick, and the wastage resulting therefrom. They made suggestions for the future, and indicated the necessary organisation, but as a nation we are naturally slow to adopt new ideas, and intensely conservative; yet it is well known that disease and death are always more costly than health and efficiency.

We have, I am sure, to thank the factor of public opinion for the great change which has been brought about. For the best part of a century the same powerful lever has been working in the interest of the soldier, whose conditions of life have changed beyond all recog-

nition. If we wish to learn the lot of the soldier in war during the past and preceding centuries we have only to turn to the pages of Fortescue's "History of the British Army." How any men ever survived the absence of all organisation for their preservation and subsistence in little short of a wonder. Army animals have now had applied to them similar measures to those which have been found so successful and economical with men.

I have little doubt that there are many people who date the origin of the veterinary art from late in the nineteenth century, whereas, as a matter of fact, it is as remote in the history of the world as the beginning of historic times. I propose, very briefly, to take you over the ground, not only with the object of showing the antiquity of the veterinary art, but also of indicating the important part played in its development, during the early centuries of the Christian era, by veterinarians who were associated with the Army.

The earliest extant works on the diseases and injuries of horses belong to the fourth century of our era, and were written by army veterinarians of the Byzantine or Eastern Roman Empire, the chief of whom was one Apsyrus, veterinarian in the army of Constantine the Great. The fourth century was not, however, the real starting-point of veterinary knowledge; there is ample evidence to show that there were skilled men in the times of Ancient Greece. Xenophon had written on the care and management of cavalry horses 800 years earlier than the time of Apsyrus, and we know that his views, though twenty-three centuries old, are true to-day. Aristotle, who was contemporary with Xenophon, devoted the eighth book of his history of animals to a consideration of veterinary medicine; he wrote, of course, as a layman. The Romans, on the other hand, were not skilled in medicine or surgery; in fact, for five centuries the medical art was unknown in Rome, until they borrowed from Greece. If this was the condition of affairs in human practice, it is easy to understand the position of veterinary medicine. Varro, a soldier, who wrote in 36 B.C., and who appears to have explored every branch of human knowledge, refers to the ancient Greek veterinarians as "Hippiatroi." He was evidently familiar with their works, or which, unfortunately, nothing remains. He himself wrote on the diseases of animals, and it is doubtless due to such men that the Roman Army, in the second century of our era, possessed an infirmary for sick animals known as a "Veterinarium." But Columella spoke of the "Veterinarius," or animal physician, in 42 B.C. The irritating word veterinary is therefore extremely old; it disappeared with the final collapse of the Western Roman Empire, and is not met with again until the year 1528, though it does not appear in England until the closing days of the eighteenth century.

Among the contemporaries of Apsyrus was one Chiron, whose work on veterinary medicine has come to light only in recent years. Shortly after Apsyrus there lived a lawyer and gifted veterinarian, by name Hierocles, fragments of whose letters survive, and of whose works on diseases I have been fortunate enough to find two previously unidentified manuscripts in the British Museum.

Inspired by these gifted men, Vegetius, the Western Roman General, who flourished about the middle of the fifth century, wrote his remarkable treatise on "The Veterinary Art." He was not only a soldier, but a man of letters. Vegetius stands out in bold relief in the Western Roman Empire; deploring the low state of the veterinary art in Italy, he tells us that the study of animal diseases was regarded as a mean and contemptible occupation. Though 1500 years have passed since that was written, public opinion on this question has undergone very little change. The work of Vegetius may be read with interest to-day; he is very modern in some of

his views, such, for instance, as the absurdity of regarding outbreaks of disease as being evidence of Divine wrath. He urges the public in these cases to place their faith in medical aid, rather than in incantations and charms.

It is fortunate that, amid the disruptive influences of the following 1000 years, the work of Vegetius was spared. It was among the earliest books printed in Europe, being published in 1528. Two years later, what was left of the MSS. Byzantine veterinary writers, *i.e.*, Apsyrus, Hierocles, and their many correspondents, was published in Paris, under the orders of Francis I., the title then given to the collection being "The Hippiatrica." How these manuscripts got to Paris is unknown; probably, with many others, they were brought from Constantinople to Italy by the Greek scholars who fled at the fall of the Eastern Empire, and thence carried to France as loot during the Franco-Italian wars. It is interesting to note that a copy of the fragmentary manuscripts of these early Byzantine veterinary authorities is regarded as one of the literary treasures of the world.

This rapid, and necessarily very incomplete, outline will help to show you that the foundations of the veterinary art are not of recent laying, but belong to the history of the ancient world. As might be expected, army requirements stimulated interest in the matter. It was precisely during this period of the Hippiatrica, *i.e.*, the fourth century, that masses of cavalry were coming into existence, and largely replacing infantry in the line of battle. The growth of the cavalry arm, and the development of veterinary medicine and surgery, were not a mere coincidence.

I must not occupy your time by giving an account of the veterinary art from the Renaissance to the present day; but one important epoch in its history in this country cannot be passed over. In the last days of the eighteenth century—to be precise, 1791—a French refugee established a veterinary school in London, on the model of those then existing in France. Thus, for the first time in England, properly trained men were supplied for the veterinary care of horses. The opening of this school was welcomed by officers commanding mounted branches of the army. Troop horses had been decimated by contagious diseases, and the sole advisers were the ignorant farriers. Within five years of the opening of the London school, commissions in the army were given to its graduates. This was the beginning of the Army Veterinary Service, the development of which must occupy our attention for a few minutes, in order that its position at the present day may be understood.

At the end of the eighteenth century, and for many years afterwards, regiments were practically the private property of their colonels. It was they who engaged the necessary technical staff, such as surgeons and veterinary surgeons, and these officials, it is interesting to note, were actually remunerated by certain stoppages from the soldiers' pay. The Government of those days starved the army in every way, and insisted on its being self-supporting.

The method of caring for the sick animals of regiments on service was very simple. If they were not too ill to walk they were led along with the baggage; if too ill they were left behind to look after themselves. Nor need we be surprised at this primitive arrangement, when much the same system was employed in the case of the men. The long years of peace which followed Waterloo were not calculated to develop either the medical or veterinary branches of the army. Peace routine was simple: every regiment had its own separate accommodation for sick men and horses, and its own doctors and veterinary surgeons. The nurses in both cases were the untrained soldiers of the regiment.

The Crimean campaign revealed the impossibility of

attempting the regimental treatment of the sick and injured. The lesson had to be learned that sick men and horses are of no fighting value, a clog on mobility, and that the sooner they are moved into hospitals away from their regiments, the better for both regiments and patients.

For years after the Crimean War, thinking men in the medical service of the army were ever pressing forward a scheme by which the medical officers of the army were to be drawn from regiments, and converted into a homogenous body with subordinate technical staff under their own control, and hospitals under their own management and administration. Bitter and prolonged was the opposition to reforms of such obvious utility and humanity, but gradually each point was conceded until the Army Medical Corps was born. I need not refer to its magnificent work, nor the extraordinary manner in which it has controlled disease. It has recently been shown that in previous wars, from ten to fifteen men have died of disease to one who has died at the hands of the enemy; in the present war, one man has died of disease to every ten whose death was caused in the field.

It is self-evident that a scheme suitable for sick and wounded soldiers was capable of being adapted to the requirements of sick army animals. The Veterinary Service urged that its scattered and impotent components should be formed into a single body under its own officers, and given facilities for dealing with disease and injury on an organised basis. This scheme has taken nearly forty years to accomplish, and the only qualification I possess for appearing before you to-day is that I am the one survivor at present in active employment—though as a "dug out"—who has witnessed the entire transformation, and, further, I have been privileged to assist in its construction.

It is a remarkable fact that the people who are most anxious for the suppression of disease are those whose financial interests would appear to suffer seriously by its obliteration. More than two thousand years ago, Plato wrote that medicine was the science of health. The present position of preventive medicine in this country is due solely to the persistent hammering by the medical profession, which has resulted in the enormous improvement in the health of the nation, but much remains to be done. It may not be known to you that statistics have recently been published, which show that only one man out of every three in the prime of life is capable of being passed fit for service in the front line! This national reproach is far more difficult to deal with than unsoundness in horses, but even there, where the matter is under the direct control of the individual breeder, little but indifference has, in the past, been shown to the laws of heredity, so far as the affect the question of disease or transmissibility of unsoundness. The serious prevalence of consumption among our dairy stock is another reproach, of the removal of which at present there is no indication. Yet such is possible.

The fact is that the public do not appear to be seriously interested in the prevention of disease. Far otherwise is it in the question of treatment; they love medicine, especially nostrums, for which they are cheerfully prepared to pay the Exchequer £200,000 a year in stamp duty alone! Similarly, the entire function of the veterinary profession, according to the public view, is the treatment of disease. I am anxious to remove this erroneous conception, and to impress upon you that its great office is prevention. From the date of the first Army Veterinary Service in 1796, the campaign against disease has been going on. As we have seen, it was the appalling losses due to contagious diseases among troop horses which created the Service, and within a few years of its formation matters had improved beyond recognition.

Every step in the fight against disease has to be based upon precise scientific knowledge. Very occasionally a truth is obtained by accident, as, for example, the protection afforded against smallpox by inoculation with cowpox, but accidental discoveries are rare. It was the patient study of the mosquito, flea, louse, and bed-bug which showed their connection with malaria, plague, trench fever, and typhus. It was the study of certain species of blood-sucking flies and ticks which revealed the true nature and origin of a series of plagues which still remain incurable, and are capable of destroying the whole human and animal life of a sub-continent.

I am endeavouring to show that the importance of veterinary hygiene and veterinary preventive medicine has been overlooked by the public. These play the largest part in the work of the Army Veterinary Service, for the chief losses among animals in war are not due to battle casualties, but to disease and injury. Contagious diseases have to be guarded against by the careful inspection of all animals, their introduction into the Service has, if possible, to be prevented, and should they gain admission, their early detection and obliteration is of paramount importance. In times of peace this is not difficult, but in war it is otherwise, for not only are the risks of infection much greater, but the facilities for proper inspection are infinitely less perfect. Moreover, there is a daily risk of fresh infectious material being introduced by the constant influx of new animals to replace wastage.

Injuries are controlled by a precise knowledge of how they are produced. Let me illustrate this point, which otherwise would appear to be a mere platitude. Sore backs, sore shoulders, head-rope galls, and kicks from other animals, are among the prolific sources of injury in the field. The trained eye can recognise at a glance an ill-fitting saddle or collar; it can recognise a head-rope so fastened that it is bound to cause injury, and can prescribe means of restraint for kicking horses which considerably limit their activities. Knowledge of this kind is designated "horsemastership," and the man who possesses it is a valuable asset to the State. He must also understand how horses should be fed, acquire an acquaintance with the various foods employed, and the elementary principles of nutrition. He must always be learning, for these questions are not so simple as might appear, and the knowledge cannot be acquired by reading. An apprenticeship of five years under a good horsemaster is necessary, in order to gain a working acquaintance with the subject. Two thousand three hundred years ago Xenophon wrote that the eye of the master makes the horse fat. This is an axiom in horsemastership, for there is nothing capable of taking the place of constant supervision. We must remember that when animals are tied up they cannot look after themselves.

(To be continued.)

#### NORTH MIDLAND VETERINARY ASSOCIATION. (NATIONAL V.M.A.—NORTHERN BRANCH).

A meeting was held at the Grand Hotel, Leopold Street, Sheffield, on Tuesday, December 17th.

Prior to the meeting the members present were entertained to tea by the Sheffield Members of the Association.

The following were present:—Messrs. W. Collinson, President, T. C. Fletcher, M. Robinson, and F. L. Somerset, Past Presidents, R. Hudson, Vice-President, J. S. Lloyd, Honorary Secretary, H. Thompson, Honorary Treasurer, and T. Bowett, G. J. Furness, S. E. Sampson, and C. S. Smith. Mr. J. Malcolm Armfield was present as a visitor.

Before beginning the business of the meeting, the President proposed a vote of condolence with the Hon-

orary Secretary in the loss he had sustained by the death of his daughter, which was carried in silence by the members standing. Mr. Lloyd thanked the members for their vote.

The Minutes of the last meeting having been printed and published, were taken as read, and on the vote of Mr. Thompson, seconded by Mr. Robinson, were adopted. The report of the Council Meeting held on October 15th, was read by the Honorary Secretary and signed by the President.

Apologies for inability to be present were received from Messrs. Ludlow, Murgatroyd, Nixon, and Wheatcroft.

#### ELECTION OF OFFICERS.

Mr. F. L. Somerset proposed and Mr. Smith seconded that the retiring President, Mr. W. Collinson, be re-elected. This was carried unanimously, and Mr. Collinson thanked the members for his re-election.

Mr. FURNESS proposed and Mr. ROBINSON seconded that the other Officers be elected *en bloc*, as suggested in the Minutes of the Council, and this was carried.

In effect the Officers for the year 1919 will be as follows:—

President: Mr. W. COLLINSON.

Past President: Mr. T. C. Fletcher.

Vice-Presidents: Messrs. R. Hudson and S. H. Nixon.

Hon. Secretary: Mr. J. S. Lloyd.

Hon. Treasurer: Mr. H. Thompson.

Auditors: Messrs. S. E. Sampson and W. Murgatroyd.

Council: Officers Ex-Officio, and Messrs. Bowett, Furness, Marrison, Robinson, Smith, and Somerset.

#### VETERINARY FEES.

After some discussion it was agreed that the fees decided upon at the last meeting should stand. This practically amounts to an increase of 50% upon pre-war charges.

Regarding fees paid by Insurance Companies, it was unanimously agreed that the lowest fee to be accepted should be 5/-: mileage to be charged extra if the distance travelled is over three miles, it being understood moreover, that special visits should not be made in connection with these cases, but that the examination should be made when the practitioner was in the neighbourhood.

#### NOTES ON CASES.

In the absence through illness of Mr. S. H. Nixon, who had promised some "Notes on Interesting Cases", it was decided to proceed with the subject, and the President called upon members generally to carry on the discussion.

The PRESIDENT related the facts of an interesting case of Tetanus. He injected ant-tetanic serum into the near jugular vein and this caused the animal considerable uneasiness, sweating, etc., which in a short time passed off. The next morning he found the opposite fore leg considerably swollen, as if the animal had an attack of Lymphangitis. The mare recovered from the Tetanus, but the leg continued swollen and she only moved with difficulty. The animal was forced to use the leg and ultimately did well.

He also gave an account of a Skye terrier which was brought to his premises for board and left three weeks, whilst in his possession being exercised only on the chain. The animal was sent home and also exercised from there on the chain but soon developed symptoms like Strychnine poisoning. It was ascertained that the animal had been fed on the flesh of a cow that had been treated with Nux Vomica. The dog died but no analysis was made. He wondered whether the symptoms were due to the Nux Vomica.

Messrs. FURNESS and SOMERSET remarked that they thought dogs were very susceptible to Strychnine.

Mr. SOMERSET also mentioned the case of a Persian cat which had stoppage of the bowels, and in which he

attempted to give an enema but found he could not insert the syringe. There was a history of a foreign body, and under the X Rays a needle was discovered. It was not possible to remove the needle, and the cat had to be destroyed.

Mr. ARMFIELD mentioned a case of vomiting in the horse through the nose and mouth.

The HONORARY SECRETARY stated that he had seen a case of vomition in the horse caused by eating young clover. The only treatment given was chlorodine and bi-carbonate of soda, and when he visited the animal the next morning he found it quite healthy.

Mr. R. HUDSON had seen a case due to feeding on mangolds, but in this case the animal died. A post-mortem examination was made and it was found that there was no rupture of the stomach, but its contents were of a very fluid nature.

The PRESIDENT mentioned Lang's treatment by the stomach tube and the administration of sodium chloride solution, and stated that he had passed a cattle probang in a case of distended stomach with good results.

Mr. THOMPSON related the history of several horses which had been "tubed" in which he had seen quantities of water passing down the trachea into the lungs whilst drinking. No evil results seemed to follow.

Mr. HUDSON had treated suppressed abscess through the tracheotomy tube with good results.

#### LYMPHANGITIS.

Mr. FLETCHER initiated a discussion, and wished to know if anyone had used common salt for treating such cases, and particularly where the leg remained considerably swollen after the acute symptoms had passed off.

Mr. SOMERSET stated that he had good results in such cases with sulphate of soda.

Mr. THOMPSON and Mr. FURNESS thought work or forced exercise was wanting.

The HON. SECRETARY stated that he had good results from two drachm doses of Aloes every other day, but considered nothing would decrease a thick leg once fibrous tissue had been formed.

The treatment adopted by Mr. Furness was to give a dose of physic (aloes) followed by doses of Iodide of potass twice daily.

Mr. SAMPSON did not like big doses of aloes in old old horses; his experience being that they often proved fatal. He generally gave Hyposulphite of soda.

The PRESIDENT, on the other hand, stated that he gave a first dose of five drachms of Aloes, and repeated it in 48 hours. As soon as the action of the Aloes had passed off he put the animals to work.

It was generally agreed amongst the members present that lymphangitis is not now so common as before the war, and some of them thought this was probably due to the absence of beans in horse-food mixtures.

Mr. THOMPSON stated he had lymphangitis in batches owing to the horse having been fed upon carrots.

Mr. SOMERSET mentioned a case of an ambulance horse that had had lymphangitis about six times. He was afterwards sold to a grocer who kept him in poor condition and gave him hard work, with the result that he was now free from the disease. While doing the ambulance work he had a first attack of lymphangitis which was treated with six drams of aloes followed by nitrate of potass, and put to work. The next week, or in a short time after, another fore leg was attacked and was successfully treated in the same way. Repeated attacks, however, left a thick leg behind. He thought lymphangitis was something like gout.

Mr. ARMFIELD mentioned a case where fibrous tissue developed to such an extent as to interfere with the action of the flexor tendons, causing the animal to have an over-shot fetlock.

Mr. FLETCHER wanted to know if anyone had seen lymphangitis of the bowels.

Mr. HUDSON thought a probable cause of lymphangitis was plugging of the iliac arteries.

The HON. SECRETARY considered that the symptoms of lymphangitis as shown by pain and sweating of the leg was due to inflammatory action in the lymphatic vessels, and considered that the swelling afterwards was due to inability of the lymphatics to carry away the exudations.

#### INTERESTING SPECIMENS.

Mr. SAMPSON showed the superior maxilla and pad of a three-year old bull affected with actinomycosis in the upper palate. He administered 20 grains of Bin-iodide daily, and painted the mass with carbolic phenol. The growth increased, and involved the nostrils, and in consequence the bull had to be slaughtered. A post-mortem examination revealed the animal to be also affected with advanced tuberculosis. [Since the date of the meeting, the specimen from the bull has been submitted to Sir John M'Fadyean for his examination, and he has reported that the disease was undoubtedly actinomycosis. The animal was thus suffering from two diseases at the same time.] He had been bought for stock purposes in the North of England, and he wondered whether he had been a tuberculin "reactor." He had known several good bulls which had been bought cheaply and afterwards found to be tuberculous. In his opinion it pointed to the fact that these bulls had been tested probably for overseas trade, but having failed to pass the test, were sold in this country for stock purposes.

Mr. SAMPSON also continued his remarks from a previous meeting regarding the case of a bull with one testicle. Attempts had been made to get the seller to return part of the purchase money, but he declined to do anything as the condition was not hereditary. He thought it would interest the members to know that this bull was now serving cows with success.

A vote of thanks to the President concluded an interesting meeting.

J. S. LLOYD, Hon. Sec.

#### TEACHERS AS COUNCILMEN.

*To the Editor of "The Veterinary Record."*

Dear Sir,—The Editorial in your issue of the 1st inst. appears to be a combination of two efforts—to stifle criticism of the Council of the R.C.V.S., and to laud and magnify the qualifications and abilities of teachers, or, as you call them, "Schoolmen," as Councillors. If I may be allowed your hospitality, I wish to state most candidly, that I do not think that the opinions which you advance and espouse so emphatically, are supported by the majority of the profession.

A correspondent, who is obviously only expounding his own views, expects, and is allowed considerable latitude therein, as it is not of great consequence, whether he is voicing the collective views of his fraternity, or merely playing a solo; but in the editorial of a professional paper one expects an expression of opinions, which, although probably conservative, are also unbiased and tolerant; qualities that are not conspicuous in the article I refer to.

To speak of criticism of the Council as, "Indulging in general disparagement," and as a "Vagary," and "Derogatory," savours more of the ponderous and theatrical magnificence of the Petty Sessions, than of the editorial sanctum, and it will indeed be a sad day for the profession if we must withhold our views, lest we incur the chastisement of the editorial rebuke.

What you also term with magnificent scorn, "this sort of thing," appears to be that zoological curio, popularly known as a mare's nest, which, although seldom seen, is hardly worthy of the editorial thunder. You proceed to repudiate a view, which I am not aware has

been seriously advanced, that "teachers of the Council care for nothing beyond school and examination questions;" although I am prepared to admit unreservedly that they may be as interested in the general policy of the Council as much as any other class, it would indeed be passing strange, if they did not consider these questions, in which they are presumably well versed and highly interested, of paramount importance, and who shall say, that from their point of view, they are not right? This much may be granted, but that, "they would still be indispensable," requires some swallowing.

Word values change with the times, and the most striking contemporary instances of such change, may be found in the recently ubiquitous words, "contemptible," and "indispensable," the former, used as a noun to imply a character almost beautified in its modern meaning, and in its pre-1914 sense, as a fitting adjective to qualify the latter in its "tribunal" usage. I should be loath to apply the latter meaning to the teacher Councillors, but, with no ill-will, submit that it is as accurate as your description, and equally ridiculous.

Your next statement, "Matters which profoundly affect the future of the profession, are quite as important as anything concerning its present; and the most aggressively 'energetic,' practitioner can hardly claim that he and his kind are so well fitted to deal with them as school men," is to point, with a vengeance.

Had you here had the benefit of an interlocutor, to cry forth that classic aphorism, "That's the stuff to give 'em," I do not think that even the most brazen of those ignorant nonentities, the aggressively energetic practitioners, would have dared to speak again on the subject, unless perhaps, with great humility, to recant his former absurd, and heretical opinions. As I make no pretensions to be either aggressive or energetic, may I ask you to substantiate this new dogma?

By what process of second sight, occultism, necromancy, or alchemy are the "schoolmen"—(like Councilmen, a strange and cumbersome union, savouring of the Hun principle of compounding words)—enabled to see into the future, any farther than other practitioners, aggressive or otherwise? And why are "he and his kind" less fitted to deal with such matters than the teachers?

With lavish hand, in the best demagogic manner, you propose to distribute what is not yours to dispose of, i.e., the seats on the Council, when you state, "the interests of different schools occasionally clash, and it is therefore desirable that each should have at least one representative." One is grateful that you should have limited the number, for if your argument is sound it might seem only reasonable that the schools should have two, or three, or more representatives each.

It is well that you have previously given the knock-out blow to the aggressively energetic practitioner, otherwise he, with that crude coarseness typical of "he and his kind," might ask what on earth the clashing of different school interests has got to do with the Council. Or even suggest that the floor of the National Sporting Club is a more suitable arena for the settlement of these squabbles.

The statement that, "These reasons alone render a good school representation imperative," is rendered nugatory by the fact that few people will accept them as reasons, but only as a grossly biased and pragmatic expression of opinion, unsupported by facts.

The query, "But who has greater opportunities of obtaining such knowledge (of the necessities of the profession) than he" (the teacher)? is answered to your own satisfaction by your statements, that:—

(a) "He works in a large city where he may meet many more Veterinary Surgeons than are to be met with in any country district."

This is truism, and is equally applicable to all his fellow citizens in the profession.

(b) "Often his work,—especially if he is a pathologist or clinician, brings him into contact with veterinarians much farther afield."

The bringing into contact may be conceded, but, that the necessities of the profession are the chief subjects of discussion may be queried: it is much more likely that when the subject of consultation is settled, that politics, racing, or vintages, are the topics discoursed on. Readers of Shakespeare will have observed, that when two or three men are gathered together, the conversation generally turns upon the fair sex: may I with great timidity and all humility, (if my query is not so irreverent as to verge on the profane)—ask, if it is not just possible, that on the occasion of these meetings our intellectual giants do not sometimes also revert to type, and exchange a few pleasantries on, "The Ladies, God bless them."

(c) "Often also, he keeps in touch with many of his old students; and this in time, greatly extends his professional acquaintance."

This also is true, but like the former point, does not imply any widening of knowledge of professional needs, and if indeed in both cases, such needs are the only topics of conversation, the knowledge acquired is only second hand, and is merely the crumbs which fall from the table of knowledge, of the general practitioner.

(d) "The truth is that hardly any man is so well able to gain a wide and intimate knowledge of the condition and requirements of the profession as a teacher, especially if in a large school."

Having thus given the *coup-de-grâce* to the smaller schools and their representatives the field is somewhat clearer; it would however have been simpler to limit your advocacy in the first case solely to a large representation of teachers from the largest school, whichever that may be, and to let the smaller fry disappear into oblivion, along with aggressive and energetic practitioners, and those from the country, who are denied the mental sustenance and enrichment, which are apparently only to be found in large cities.

(e) "Compared with his opportunities, those possessed by the great majority of practitioners are insignificant."

This is highly debatable, but even if correct it must be stated, that is not the number of opportunities given, but the manner in which they are made use of that counts, and unless evidence is produced to enable us to judge on this point, many, like myself, will consider your statement of doubtful value.

(f) "Add to this the fact that teachers are usually men of more than average natural ability; and it is easy to understand their potency in the Council chamber."

This is sufficient to finally choke off anyone with a hideous pachydermatous than that of Lord Haldane, but as it is well known that fools rush in where angels fear to tread, I propose to have a rush.

If you mean that teachers, like other veterinary surgeons, are of more than the average ability of men outside the profession, I heartily agree, but if you wish to assert, that teachers are of a higher ability than their professional brethren, your views are only spared from being dedicated as an insult to the profession, by their crude absurdity.

Your final paragraph is so ingenuous, and so very definitely non-committal, as to be worthy of ranking with Counsel's opinion.

I wish to emphasise that I have nothing but the best of good feelings towards the teachers in our schools: in great part their devoted services are not performed in the lime light, and probably their great work for the welfare of the profession is apt to be overlooked, especially those whose names are seldom brought to our notice. I feel sure that many teachers must possess qualities which render them peculiarly well fitted as Councillors, not because, but rather, one might say, in spite of, the



fact that they are teachers. Had you limited your advocacy to that point, I should not have ventured to emerge from my obscurity, but, that teaching is a prime qualification for a seat on our Council, is a doctrine which I cannot subscribe to.

It has been stated of lawyers, that, "they see too much of life in one way, too little in another, to make them safe guides in practical matters. Their experience of human affairs is made up of an infinite number of scraps cut out of other peoples lives." These words may with equal truth be applied to teachers.

Mankind has frequently been divided into classes: in the early days of the Christian era, the dividing line parted the sheep from the goats. P. G. Woodhouse classifies mankind as men who can stop dog fights and men who can not do so.

Rudyard Kipling's division is, Human Beings and Germans, but apparently your cleavage is the separation of science from brute force, when you divide the profession into "teachers," and "the great majority of practitioners."

It is with the greatest reluctance that I assume the office of press correspondent, for which I possess neither inclination nor aptitude, but as I regard your attack on the great majority of the profession, and your unfavourable comparison of their abilities with those of the teachers, as being in the most questionable taste, I feel impelled to enter the lists, in defence of myself and my non teaching colleagues, at whom you have so contemptuously, thrown down the gage.

It was, I believe, Disraeli, who delivered the delightful dictum, that, "The worst of great thinkers is that they always think wrong," and it would be charitable to assume, that the wrongness of your views is solely due to the greatness of your thoughts.—I am, Sir,

Yours faithfully,

A. B. MATTINSON, Major, R.A.V.C.,  
Commandant School of Farriery.

Woolwich, S.E. 18. 5/2/19.

[We print the foregoing as a contribution to the argument; it is amusing, but it occupies much space, and it does little to elucidate the main question, upon which there is a distinct difference of opinion—Is it desirable that the teaching colleges should be represented at our Council board?]

#### ARMY VETERINARY SERVICE

War Office, Jan. 30

The following dispatch has been received by the Secretary of State for War:—

General Headquarters, Salonika, Nov. 1, 1918.

My Lord,—I have the honour to submit here a list of the names of the Officers whose services I desire to bring to your Lordship's notice for gallant conduct and distinguished services rendered during the period from March 1, to October 1, 1918.

I have the honour to be, my Lord,

your Lordship's most obedient servant,

G. F. MILNE, Lt.-Gen.,

Commanding-in-Chief, British Salonika Force

Col. (temp. Brig.-Gen.) F. Essie, C.B., C.M.G., D.S.O.; Temp. Capt. (actg. Lt.-Col.) D. O. Turnbull, D.S.O.; Temp. Capt. T. B. Harries; Maj. W. L. Harrison, O.B.E., F.R.C.V.S. (T.F.); Temp. Capt. A. A. Higgins (died); Temp. Capt. G. N. Jull; Temp. Capt. H. B. Kauntze; Temp. Capt. G. Moir, O.B.E., F.R.C.V.S.; Capt. R. H. Penhale (T.F.); Temp. Capt. J. Richardson; Capt. (actg. Maj.) P. R. A. Thrale (T.F.).

War Office, January 31.

The following dispatch has been received by the Secretary of State for War:—

General Headquarters, Sept. 30, 1918.

My Lord,—I desire to record my appreciation of the excellent services rendered by the Officers included in the list I am forwarding with this Dispatch, during the period from December 1, 1917, to July 31st, 1918.

I have the honour to be, my Lord,

your Lordship's obedient servant,

J. L. VAN DEVENTER, General-Commanding-in-Chief,  
East African Force.

STAFF—Temp. Capt. F. J. McCall, M.C., E.A.V.C.

Capt. A. M. Howie, S.A.V.C.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Jan. 30.

REGULAR FORCES ROYAL ARMY VETERINARY CORPS

Capt. F. W. C. Drinkwater (T.F.), to be actg. Maj. whilst holding the appt. of D.A.D.V.S. (Nov. 1, 1918).

Temp. Lts. to be temp. Capt. :—S. H. Pettifer, J. J. Clune, G. P. Kennedy, J. P. A. Morris (Jan. 15).

Jan. 31.

Temp. Capt. T. A. Huband, F.R.C.V.S., relinquishes his commn. (Jan. 7,) and retains the rank of Capt. (Substituted for notification in *Gazette*, Jan. 6.

Feb. 3.

Maj. and Bt. Lt.-Col. W. A. Wood relinquishes the actg. rank of Col. on ceasing to hold the appt. of D.D.V.S. (Nov. 22, 1918).

Maj. and Bt. Lt.-Col. P. J. Harris to be actg. Col. while holding the appt. of D.D.V.S. (Nov. 22, 1918).

Capt. (temp. Maj.) A. Spreull D.S.O. (T.F.), to be actg. Lt.-Col. while holding the appt. of A.D.V.S. (Dec. 3, 1918).

Capt. P. T. Lindsay, Spec. Res., to be actg. Maj. while holding the appt. of D.A.D.V.S. (Dec. 7, 1918).

Feb. 4.

Capt. L. A. Auchterlonie relinquishes the actg. rank of Maj. on ceasing to comd. a Vety. Hosp. (Jan. 20).

Feb. 5.

Temp. Capt. W. H. James, D.S.O. relinquishes the actg. rank of Maj. on ceasing to hold the appt. of D.A.D.V.S. (Nov. 11, 1918).

Capt. J. H. Thomson (T.F.), to be actg. Maj. while holding the appt. of D.A.D.V.S. (Nov. 11, 1918).

The following temp. Capt. relinquishes their commns. on appt. to the Aust. Imp. Force:—J. J. Bourke (Dec. 7, 1918); Bt. Maj. S. L. Symonds (Dec. 18, 1918).

D. S. Rabagliati to be temp. Capt. without pay or allowances (Feb. 5, 1916).

SPECIAL RESERVE OF OFFICERS.

Jan. 31.

Lient. to be Capt. :—J. D. Haywood (Jan. 16).

Feb. 1.

Capt. R. Moore is placed on the retired list on acct. of ill-health caused by wounds (Feb. 2).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Jan. 29.

Major W. L. Harrison, O.B.E. F.R.C.V.S., to be actg. Lt.-Col., whilst A.D.V.S. (Jan. 21).

Bt. Maj. (temp. Maj.) G. W. Godwin relinquishes the temp. rank of Maj. on ceasing to be empld. as D.A.D.V.S. (Sept. 29, 1918).

Temp. Capt. H. Leeney is retired, having attained the age limit (Feb. 5), and retains the rank of Capt.

### NOMINATIONS FOR ELECTION TO COUNCIL, JUNE, 1919.

Eight Vacancies.

Candidates.	Proposers.
BRADLEY, O. C., Edinburgh	J. Abson, H. Sumner
CRAIG, J. F., Dublin	D. S. Prentice, T. H. Griffin
DUNSTAN, J., Liskeard	O. C. Bradley, S. Stockman
GAIGER, S. H., Glasgow	S. Stockman, P. Wilson
GOFTON, A., Edinburgh	F. W. Garnett, A. L. Wilson
HAMILTON, D., Hamilton	O. C. Bradley, P. Wilson
HILL, J., Llanelly	D. G. Davies, J. F. Rees
LAWSON, A., Manch'r	F. W. Garnett, J. W. Brittlebank
LOGAN, W., Inverness	R. J. Sturdy, L. L. Dixon
MALE, G. P., Reading	G. A. Banham, J. C. Coleman
STOCKMAN, S., London	F. W. Garnett, R. C. Trigger
TUTT, J. B., Winchester	E. W. Baker, T. B. Goodall
WHARAM, S., Leeds	S. E. Sampson, J. Clarkson
WILLETT, J., London	J. T. Share-Jones, H. Sumner

*Subscriptions to R.C.V.S. are unavoidably held over.*

### Personal.

**HOWIE—HANNAY.** At the Grand Hotel, Charing Cross, Glasgow, on the 4th inst., by the Rev. James Hutchison, M.A., Cambuslang, assisted by the Rev. William Baxter, M.A., Barrhead, Adrian Morrison Howie, M.R.C.V.S., Capt R.A.V.C. (late South African Veterinary Corps), only surviving son of Mr. and Mrs. Thomas J. Howie, "Auchinblae," Kirkburn Avenue, Cambuslang, to Agnes McCall Ney (Nancy), eldest daughter of Mr. and Mrs. John W. Hannay, "San Remo," Stewarton Drive, Cambuslang.

### OBITUARY.

**PATRICK DESMOND ENGLISH, M.R.C.V.S.,** Queenstown, Ireland. Graduated, Dublin: July, 1911.

Mr. English died 28th Nov., 1918, Aged 30.

**E. GRANVILLE HASKELL, M.R.C.V.S.,** Bury St. Edmunds. Lond: Dec. 1904.

Death occurred 26th January, at the age of 44.

**ARTHUR GOULÉ, G.V.S.,** Pretoria.

Lond: April, 1871.

The loss is reported of Mr. Arthur Goulé; torpedoed on "Galway Castle," en route to South Africa, on Sept. 12th, 1918.

**ALFRED MALLER, Hove, Brighton,**

"Existing Practitioner."

A correspondent writes:—"Mr. Maller died here (Hove), on Saturday last, Feb. 1st; he was in his 88th year, and was engaged in his practice until about six weeks ago. He had been in practice here for over 60 years." He was always well spoken of by members who came in contact with him professionally.

**HENRY PULMAN, Nelson, Lanes.**

"Existing Practitioner."

Death of Mr. Pulman took place on 31st January.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.	Out- breaks	Ani- mals.		Out- breaks	Slaugh- tered.*
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Feb. 1	1		6	7		5			164	344	20	17	4
Corresponding week in {	1918		5	10					151	290	19	13	3
	1917		12	12			1	1	106	218	33	34	9
	1916		7	7			3	12	98	247	10	71	200
Total for 4 weeks, 1919	15	2	28	24	12	75			883	1932	101	89	34
Corresponding period in {	1918		85	44			2	3	762	1537	113	84	27
	1917		68	72			4	4	489	926	174	193	72
	1916		63	65			7	25	487	1332	97	385	1244

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Feb. 4, 1919

‡ Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND.	Week ended Feb. 1	...	...	...	...	...	...	Outbreaks	2	14	...	...
Corresponding	Week in	1918	...	...	...	...	...	7	8	...	...	...
		1917	...	...	...	...	...	1	10	4	24	...
		1916	...	...	...	...	...	...	20	5	1	...
Total for 4 weeks, 1918		...	...	...	...	...	...	21	71	5	13	...
Corresponding	period in	1918	...	...	...	...	...	21	58	1	1	...
		1917	...	1	...	...	...	6	77	16	90	...
		1916	...	1	5	...	...	9	85	18	37	...

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Feb. 3, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1597.

FEBRUARY 15, 1919.

VOL. XXXI.

## ELECTION PROPOSALS.

Two old proposals are to-day revived in an election address. The first is that, when the passage of the Bill affords the necessary funds, the "out-of-pocket expenses" of members of Council shall be paid. Probably most men will agree with this in principle, at least to some extent. There is much to be said against remunerating Councilmen for their services, for one having the interests of the profession at heart would not grudge the few days each year which Council work demands; but the payment of expenses is another matter. "Actual out-of-pocket expenses" is a somewhat elastic term; but the railway expenses of all Councilmen living fairly out of London ought certainly to be met by the College as soon as our funds allow; though even that will amount to no small annual disbursement.

The second proposal—of splitting up the profession into electoral divisions on the Parliamentary plan, is an older one. It has appeared before at times when the profession felt vaguely dissatisfied with the Council; and has died away before long, as it probably will again. Plausible as it may appear at first sight, it will not bear close examination. Our present system is that the candidate appeals to the whole profession, promises to work for its interests as a whole, and is elected by votes coming from all over the Kingdom, and beyond it. That is the widest possible basis for the election; and any narrowing down of it would be injurious. The long-established practice of the Professional Societies nominating candidates for Council elections has not done much good to the Council itself. Such candidates have been elected, often largely and sometimes wholly through the influence of their Societies. Some have been good men; but, speaking very generally, a great many have not been legislators of the broadest views. A system under which every candidate is not merely nominated but actually elected by a small section of the profession would tend to produce Councilmen of still narrower type. Under our present system, a Councilman at least knows that the whole profession placed him in his seat and can remove him from it, and will probably take something like an all-round interest in the profession. Under the local plan, he may ignore all interests save those of his "constituency." Moreover, though there are many questions which concern some sections of the profession more than others, there are few in which the interests of different sections directly clash; and this nullifies the chief apparent reason for a division of the electorate. There are no grounds for supposing that division would improve the Council in any

direction; there are solid grounds for believing that it would do the reverse.

Our voting system, under which the members choose a quarter of the Council every year, is as perfect a method of enabling the whole profession to constantly influence its governing body as could be devised. Doubtless it often returns the wrong man to the Council; but it does so not from any faults in the system, but from errors in the judgment of the very human electorate.

## MATRICULATION EXEMPTIONS.

A correspondent criticises the recent exemption from matriculation of three prospective veterinary students, subject to "satisfactory testimonials as to general education" being received. The present conditions are unprecedented and there can be little harm in the few exemptions that have been made, always providing that good evidence of a liberal education is forthcoming.

Schoolmasters' testimonials, which are also in a sense certificates of work done, and are not necessarily given with reference to any one profession or calling, supply this. The Examination Committee judge each case on its merits, and there is no reason to think that each is not scrutinised keenly. That such scrutiny should also be sympathetic goes without saying; for, if ever men did deserve special consideration, these do.

## GOING THE WRONG WAY.

In the report of the proceedings of the N.M.V.A., in the current issue of *The Record*, February 8th, there is a note by Mr. Thompson regarding some horses which had been "tubed," and in which he had seen quantities of water passing down the trachea into the lungs whilst drinking, and that no evil results followed. It is to be regretted that more particulars of these cases were not given, as the question is an interesting one. Some years ago there was a note in one of our weeklies of a similar occurrence, and here also no harm seems to have resulted.

We "tubed" a mare in 1914 within a few hours of the apparent onset of a very severe attack of strangles. For the next two days the patient took nothing, and from the third to the sixth day only fluids—mainly milk. After each effort at swallowing, a little stream of milk would come through the opening in the trachea, and doubtless more passed down. The mare never coughed or seemed to be inconvenienced in any way from the presence of these fluids in the trachea. When an abscess formed and the pus was evacuated, liquids ceased to come through. At this date, 1919, the mare is quite well.

The history of these cases seem to suggest that the passage of fluids into the trachea during efforts to swallow, in severe sore throat in horses, is commoner than is generally supposed; and also that it occurs in many other cases where medicines in a liquid state are forcibly administered, especially with horses. The question whether "pneumonia" follows in any of these instances would appear to depend on the nature of the fluid passing down rather than upon the quantity; so that in prescribing we should always have in view the possibility that a part of our drench may "go wrong" and accordingly avoid irritating substances or giving concentrated solutions.

It is a veritable *catastrophe of medicine* to see an animal recover from an acute attack of a given disease, and then to have to stand by and see the patient "pass out" from some pulmonary trouble induced during efforts to relieve the original condition. We saw some time since two horses die in one stable within a few weeks of each other from this cause. The attendants raised the head by means of a small pulley; and of course the horses were quite unable to get their heads down until the drenching had finished. The draught contained ammonia, and in our experience this is one of the worst agents to go the wrong way. Capsicum, in even small quantities, is also most injurious. Mag-sulph. in strong solution induces pneumonia in cows, but in dilute solution does little harm; and salt seems to occupy a similar position.

In one instance we know of ten young bullocks were each given half-a-pint of linseed oil, with the result that two died almost immediately. The oil must have entered the trachea in bulk, and no doubt it suffocated the animals. It was purely a case of carelessness in drenching.

We have seen more drench catastrophes in the horse in cases of acute gastric disease than in other conditions; here the animal sometimes obstinately refuses to swallow, and the medicines used are often of a strongly irritative character and, as a rule, given in rather a concentrated form, so that on entering the trachea they are very likely to induce trouble. The extended use of medicines in capsule form seems desirable in horse practice.

Contrary to what might be expected, an animal may not give an immediate indication that something has gone wrong. A rigor may be first symptom; then follow cold sweats and dyspnoea. The absence of cough in some instances is noticeable, and is apt to mislead. The facial expression is characteristic; in an hour or two the animal looks years older. No food is taken, and the animal remains in one position, or moves with a grunt. The temperature is at first unreliable in forming a prognosis, but it usually remains high as the case develops. If the animal is not well at the end of twenty-four hours the prognosis is often grave. In estimating the chances of recovery one must know something of the character of the agent swallowed, for it seems clear from the evidence that the mere entrance of a bland unirritating fluid into the trachea in moderate amount is a matter of little importance.

F. T. HARVEY, F.R.C.V.S.

## DROPSY OF THE UTERUS IN A EWE.

*Subject.* A valuable Lincoln ewe.

*History.* Died the night previous, attempting to give birth to three lambs.

*Post-mortem.* Revealed womb greatly extended, containing in addition to three fine lambs, ready for birth, about five gallons of clear, slightly green, practically odourless fluid.

Liver showed fairly extensive fatty degeneration, and pitted on pressure. Kidneys rather large and flabby, otherwise normal.

The carcase was normal in other respects.

I have heard that this condition is sometimes produced by excessive feeding on turnips, but do not know that this was the case in this subject.

We sometimes find a similar condition in cows sent to the Sheffield slaughter-houses.

It would be interesting to hear if other veterinarians have observed this condition, and to have their opinions concerning the same—prevention, etc.

J. MALCOLM ARMFIELD,

Town Hall, Sheffield.

Assist. Vety. Insp.

## ABSTRACTS FROM FOREIGN JOURNALS.

### THE ETIOLOGY AND PATHOGENY OF RACHITISM.

De Biagi Fernando contributed an interesting article upon this subject to the *Revista Medica* for 1917. There is a theory that rachitism depends upon a disturbance in the function of the glands of internal secretion, and especially of the thymus, supra-renal capsules, and thyroid glands. So far back as 1858, Fredebleu sought to establish a connection between the function of the thymus and the development of the osseous system; but it may be said that the true origin of the thymic theory of rachitism is due to Basch. He observed that in rabbits and dogs, four or five weeks after the ablation of the thymus there were alterations in the general development, and in the case of fracture of bone disturbances in the formation of the callus. From this he concluded that the thymus gland throws into the circulation a substance which may exercise an important function during the period of growth. But the administration of fresh calf thymus to rachitic patients gave no results to Stolzner and to Lissauer; and later experiences demonstrate that, though disturbances of the thymus may have influence upon the general growth and upon the calcification, we cannot certainly find any co-relation between these disturbances and rachitism.

At a later date, importance was attached to insufficiency of the supra-renal capsules, the office of which seemed to be to regulate organic changes and the metabolism of the various tissues and animal organs.

Stolzner was the first to treat rachitism with extracts of supra-renal capsules, and obtained satisfactory results. He observed improvement of the

craniotabes, eruption of the teeth, and subsequent diminution of the fontanelle, of the thoracic deformities, and of the alterations of the epiphyses.

Prof. Bossi, of Genoa, having in repeated experiments upon sheep constantly observed that the ablation of one supra-renal capsule provoked a true osteo-porosis, treated several cases of osteo-malacia with extract of supra renal gland, and obtained not only improvement, but true clinical recovery. These results suggested the use of supra-renal extract to avoid osseous deformities, especially of the pelvis, which are observed in infancy from rachitism; and this treatment was observed to give favourable results. Other workers afterwards took it up with success. Jovane and Pace, in Naples, and Mauro Greco, in Jemma, came to the conclusion that supra-renal treatment improved the nutrition of rachitic patients, stopped the osseous pains and the gastro-enteric disturbances, caused the disappearance of the softening of the tissues, and favoured walking. Luzzatti, in Concetti, also administered tabloids of supra-renal extract, and was satisfied with the result.

According to another theory, rachitism depends upon insufficiency of the thyroid gland. The substance elaborated by this gland may have a stimulant action upon growth in general, and particularly upon the growth of the bones. In congenital myxoedema, there is an arrest in the development of these, and ossification remains stationary. Hofmeister has demonstrated that the same thing also occurs in young animals in consequence of extirpation of the thyroids. Quite the contrary occurs in hyper-thyroidism, where the growth of the skeleton is accelerated. On the other hand, Hertoghe reports good results from the thyroid treatment of rachitism. But other observations have proved that this treatment is of use only when the rachitism is associated with hypo-thyroidism; in these cases the general nutrition improves and growth recommences.

Others have suspected a relation between the pituitary gland and rachitism. The physiological importance of the pituitary gland has been much studied, first by physiologist, then by clinicians. Extirpation of the pituitary gland, especially in young animals, causes arrest of development and disturbances of dentition, the osseous system, and metabolism. It appears that the action of pituitary extract consists in improving the utilisation of the mineral salts which reinforce the organism, and in diminishing their elimination. Pituitary extract may stimulate these processes in rachitic patients, granting that hypo-function of the pituitary gland exists in them.

All the organs of internal secretion represent so many forces linked together in a long and intricate chain which governs the formative and protective rhythm of the organism. Thus it may be believed that rachitism has a polyglandular pathogeny.—(*La Clinica Veterinaria*).

W. R. C.

## THE WORK OF THE BRITISH ARMY VETERINARY CORPS AT THE FRONTS.

By Maj.-Gen. Sir FREDK. SMITH, K.C.M.G., C.B., F.R.C.V.S.  
(Reprinted from the *Journal of the Royal Society of Arts*),

(Continued from p. 276).

It will be evident to you that horsemastership in the present war has left much to be desired, through the pardonable ignorance of those in charge. Officers and men without the most elementary acquaintance with horses in civil life, have found themselves responsible for the care and management of a strange and capricious animal. Among the many difficulties of the new army there was none that it had to face greater than this; it is a subject in which information could not be obtained by any other means than that of practical experience. Nearly all the painful and frequently fatal diseases of the digestive system of the horse are due to errors in watering, feeding and work. The principles governing health and efficiency are hard and fast, there is no compromise, though under the conditions of active service much may have to be done which we know to be wrong in practice, but military necessity knows no law.

We must, however, leave the questions of the prevention of disease and injury, and of the promotion of health and efficiency in order to outline the methods of dealing with sick animals in war.

I am now about to tell you how 1300 officers\* and 27,000 soldiers, exclusive of 6000 coloured men, are employed as a corps in the various theatres of war in looking after questions of health and disease as affecting all classes of army animals. Let me remind you that the horse is not the only animal in the service. Though the public thinks in terms of horses, we must not forget that the mule is largely employed, while thousands of oxen and camels are employed in African, Egyptian, and Arabian theatres of war. All these different animals come under the care of the Veterinary Service.

We will begin our study of the question by taking the smallest complete unit of all arms, i.e., the Division.

Every division of our army is provided with a staff, consisting of officers, non-commissioned officers and men of the Royal Army Veterinary Corps. Each veterinary officer of the division has charge of a certain number of animals, and for the carrying out of his duties he is responsible to a senior officer, known as a Deputy Assistant Director of Veterinary Services. This latter officer is in turn responsible to the Assistant Director of Veterinary Services of the corps of which the division forms a part, while the corps officer is responsible to the Deputy Director of Veterinary Services of the army to which it belongs. The Deputy Directors of arms are, in turn, subordinate to the Director of Veterinary Services at General Headquarters. This is the chain of administrative responsibility by which the whole veterinary machinery works, and by which its efforts are directed and co-ordinated. It is the mechanism by which the humblest animal in the force receives veterinary attention from the moment of its being ill or injured, which directs its steps to hospital, and finally returns it to duty. No distinction is made in the matter of solicitude or care between the transport mule and the officer's charger.

Every division possesses a special veterinary organisation known as a Mobile Veterinary Section, the function of which is to form a combined collecting station for the sick, and a field veterinary hospital. It is composed of an officer, non-commissioned officers and men of the Royal Army Veterinary Corps, and is provided with its own

\* Practitioners from every quarter of the Empire volunteered their services.

transport for stores and equipment. Wherever the division goes its mobile veterinary section accompanies it. The advantage of bringing the sick of a division together for treatment is obvious, for not only is a sick animal a clog on the mobility of the battery or regiment to which it belongs, but there is no one to look after it without depleting the fighting strength.

The cases sent to a mobile veterinary section are broadly of two kinds: those which will be fit again in a few days and those requiring prolonged treatment. The governing principle in working a mobile section is that it must evacuate its serious or prolonged cases, in order to continue to perform its function as a collecting station in the field. The location of the mobile section is known throughout the division, it flies a distinguishing flag, and at night distinctive coloured lanterns are displayed. In stationary warfare it is connected up by telephone with the headquarters of the division, and care is taken in selecting its site that suitable accommodation is provided. For example, it is no use locating a mobile veterinary section some distance from a water-supply, or away from a main road.

In mobile warfare the section, in addition to receiving sick, has also to collect any animals abandoned by the division. There are always some which at the last moment are found unable to accompany their units, and these are left behind with the full knowledge that they will not be neglected. When a division is moving, its mobile veterinary section is the last to march off, and time is thus given to collect waifs and strays, and to make a final evacuation of those animals intended for hospital.

Every animal sent to a field veterinary section is accompanied by a form, which gives the name of the unit to which it belongs, the disease from which it is suffering, and a description of the animal for the purpose of identification. On admission this is checked, and the diagnosis verified, and a serial number allotted, which is placed on a label tied to the head-collar. A special coloured label is also tied on, summarising the ascertained facts regarding the cause of inefficiency, a white label being used for medical cases, green for surgical, red for contagious, and blue for casting. In addition each animal bears a stencil mark in paint on the quarter, showing the number of the mobile veterinary section to which it belongs.

A careful examination of all patients received by a veterinary section is of the utmost importance, for it is here that cases of contagious diseases may be caught in their earliest stages. If the system described is followed out, it is known at once to which unit of the division the animal belongs, and notification of the existence of contagious disease is sent it as a warning.

No more important duty exists than the early and thorough examination of the sick, otherwise cases of incurable and highly infectious disease, such as glanders, will be sent back to the base, and mixed up on the way with unaffected horses. Great judgement is also required in deciding which of the ordinary cases may with advantage be retained for treatment, and which should go back to base hospitals. Every animal sent back unnecessarily is a loss to the division, and a source of expense to the State.

What I have just described to you is the first procedure in dealing with sick animals in the front line. The second step is as follows.

When a mobile veterinary section clears out its sick, they are handed over to a formation known as a *Veterinary Evacuating Station*. This is not a divisional unit, but belongs to the corps of which the division forms part. Each corps has one evacuating station, charged with the duty of receiving the sick from all the mobile

veterinary sections, and transmitting them to the base veterinary hospitals. These evacuating stations are fixtures, located near to corps railhead, close to a water-supply and main road, and, if possible, shelter is provided by tents or in billets. The stations fly the usual distinguishing flag, while notice-boards and finger-posts at cross-roads indicate their locality; their position is also published in corps orders.

Every animal forwarded to an evacuating station appears on a roll furnished by the mobile section; this gives the information contained on the coloured label previously spoken of. Labels get lost, and are very often eaten by neighbouring animals; in fact, the problem of field marking for the purpose of identification is not entirely solved at the present time, though more or less ingenious devices have been employed.

The sick in the evacuating stations are capable of being more thoroughly and deliberately inspected than is often possible in a mobile veterinary section. The diagnosis is again checked, and a rigid search is made for contagious and infectious diseases, as it is most important that they should not escape undetected from an army area. So important is this that a certificate has to be rendered to corps headquarters specifying that each animal admitted to the evacuating station has been inspected, and stating the result. This inspection is a part of the sifting which began in the mobile section and which terminates, as we shall see, only when the animal is again fit for duty. It is the essence of veterinary supervision, and nothing can replace it. Every case passing through an evacuating station, together with its disposal, is entered in a book, and from this, totals are supplied at the end of the week to the corps headquarters concerned.

The sick are sent to the base by the evacuating stations two or three times a week, empty supply trains being utilised, or a special sick horse train made up. A train load is usually 280 horses, carried in thirty-five trucks. On no account is the evacuating station allowed to become congested, otherwise its functions are impaired, and above all there is a delay in getting the more serious cases under treatment. In some places evacuation may be carried out by water transport, and if the distance is not considerable suitable cases may march by road. Prior to evacuation all surgical cases are dressed, and first-aid dressings accompany the party. The surgical and medical cases travel in their groups, and the contagious cases travel in trucks on which is marked the instruction "To be disinfected." One attendant is told off to every two trucks; forage and a good supply of drinking water go with the animals; every evacuating station holds on charge large water bags for this purpose. Petrol tins and cartridge containers were at one time employed on these trains, and were found most useful for carrying water. Each evacuating station possesses a motor ambulance, the majority of these being gifts. From all sides one hears of the enormous value of the ambulance service in the present war, especially in France, where it has received its full development. Some hundreds of ambulances are employed in the Veterinary Service, many being motor ambulances, each capable of taking two horses.

The evacuating station having entrained its sick for the base, the operations of the second piece of machinery in the scheme come to an end, and the third takes up the work. These are the hospitals found at, or in the locality of, the various bases established for the armies, each group being told off for a definite portion of the fighting line. A group consists of two, three or more hospitals, viz., a *Reception Hospital*, a *General Hospital*, and a *Mange Hospital*.

(To be concluded.)



# ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND.

## BRITISH COMMITTEE.

A meeting of the British Committee of the Fund was held at 10 Red Lion Square, London, on Friday, 10th January, when the following members were present:—Mr. F. W. GARNETT, C.B.E., in the chair; Maj. J. Abson, D.S.O.; Mr. G. A. Banham; Prof. S. H. Gaiger; Messrs. A. Lawson, W. J. Mulvey, T. Salusbury Price, W. Packman, S. H. Slocock; Sir John M'Fadyean; Mr. R. C. Trigger; with Sir Stewart Stockman and Mr. Fred Bullock, Hon. Secretaries.

The minutes of previous meeting, on 22nd Oct., 1915, were read and confirmed.

The Hon. Secretaries reported that, as instructed at the previous meeting, an appeal was drawn up and issued early in 1916 to all Veterinary Associations, and to every member of the profession. Subscriptions as received were acknowledged, and a list was published in the veterinary press from time to time, until the end of 1916, when it was thought advisable not to make any further appeal at that time.

The total amount received to date in subscriptions is £278 8s. 11d., bank interest £27—total £305 8s. 11d. Incidental expenses amount to about £3.

The following translation of a letter from M. Vallée, President of the French Committee, was then read:—

## COMITE ANGLO-AMERICAIN-FRANCO-BELGE DE SECOURS VETERINAIRE.

ALFORT, 23 December, 1918.

Dear Sir,—It will be with feelings of emotion that our Committee will learn of the generous proposals of the British Committee with regard to our common object. Every French Veterinary Surgeon will see therein a new peculiarly touching manifestation of that hearty and active co-operation for which France is so much indebted to your great country. In return we can offer to the British Nation only our assurance of undying gratitude and attachment.

Our Committee is at present preparing a new appeal to all French Veterinary Surgeons for financial assistance. We are also asking, on behalf of our unfortunate members, for books and instruments, and for information as to vacant posts where our poor comrades may be able to support themselves by their work.

At the same time we are inviting those Veterinary Surgeons who are victims of the war to send in their names and to make known their precise needs.

Our assistance must be given forthwith. Germany will obviously have to pay for the devastations due to her hordes, and our own country, too, will give some assistance. But such reparation can only be tardy, and it is now that our help is required.

We have in hand £1200, four hundred pounds having already been expended. Our American confrères are placing at our disposal about £480. With this sum of £1680 we have to help more than 300 members. These figures will suffice to show you what inestimable assistance the generous intervention of your Committee will mean to us. We can never sufficiently express to you our gratitude, and we are deeply touched by your kind intention, which you have communicated to me, of handing over your funds to us for distribution.

Will you kindly accept and convey to the members of the British Committee the assurance of our cordial devotion.

H. VALLÉE.

It was thereupon resolved: "That in view of the pressing needs of the Fund, the sum of £200 be transmitted immediately to the Central Committee for distribution, and that steps be taken to issue at once an

urgent appeal to British Veterinary Surgeons and Veterinary Medical Associations, asking for further contributions."

The form of the appeal was left in the hands of the Honorary Secretaries.

## ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND.

A Fund for the relief of Veterinary Surgeons and their families who have suffered through the invasion of Belgium and Northern France, has been established by the French Society of Practical Veterinary Medicine, and a Central Committee has been formed, consisting of representative Veterinary Surgeons in Belgium, France, and England.

There is an Executive Committee of 25 members, of which the President is M. H. Vallée; Vice Presidents, MM. Dechambre and Lavedan; General Secretary, M. H. Rossignol; Assistant Secretary, M. P. Savary; and MM. Asselin and Houzeau, Place de l'école de Médecine, Paris, Honorary Treasurers.

The French Committee is making an urgent appeal for funds, and information as to vacant posts where victims of the war whose homes have been devastated may be able to support themselves by their work.

The British Committee appeals for contributions from British Veterinary Surgeons. More than 300 French and Belgian Veterinary Surgeons are in urgent need. They have lost all—house and goods, and livelihood. All contributions will be handed over to the Central Committee to be distributed by them.

It is earnestly hoped that not only individual members of the profession in this country, but also every Veterinary Society will send donations to the Fund.

Remittances should be made payable to the "Veterinary Relief Fund," and sent to the Hon. Secretaries, 10 Red Lion Square, London, W.C. 1.

## ELECTION ADDRESS.

Gentlemen,—Having been nominated for the next election, as a candidate for the Royal College of Veterinary Surgeons, I place myself before the Profession, as an exponent of the policy stated below. Having nothing to gain, with no axe to grind, votes and support are solicited for the programme laid down.

My statement of policy does not pretend to cover the whole ground, but enough, it is hoped, will be given to clearly indicate the general procedure sought to be followed.

Our profession has never had an opportunity like the present. The nation stands on the threshold of a new era, and the work of reconstruction involved, will throw upon us, and particularly the Council as our governing body, many obligations. These will require us to ask, and insist on our being given a full legal status, and adequate remuneration for all work undertaken. We cannot further accept the position of being non-executive and non-administrative, and we must renounce for all time the subordinate position we are at present placed in, to medical officers of health, sanitary inspectors and policemen.

As a profession we are asked to stand together and through the College, as our mouthpiece, to state to Government Departments and local authorities, the fees at which we are prepared to carry out our duties. No longer must local men be left on their own to fight and struggle with these strong bodies, wrangling over the pittance of fees, which have been doled out, in the past, as remuneration for professional services.

In like manner, such obligatory tests, as the "malfein" for all animals before going into collieries, ought to be

rigidly controlled by the Profession as a whole and the remuneration for same.

Our Council has never contained a fair representation of country practitioners *per se*: nor has the districts into which the country can be divided, been adequately represented. Why should not the Council contain men returned on the following plan:—

R.A.V.C., one; Boards or Depts. of Agriculture, four; London, two. One each: *Areas*—Liverpool and Manchester, Birmingham, Derby and Nottingham, Durham, Sunderland, and Hartlepool, Glasgow, Edinburgh, Belfast, Dublin, Cork; *Counties*—England—Northern, Eastern, Western, Southern; Scotland—Northern, Western, Eastern, Southern; Wales—North, Mid, South; Ireland—North, Mid, East, West, South.

This will give a fair representation to every interest in the profession; will supply men who are in touch with local conditions, and anything arising in an area will be capable of being dealt with by the local representative, whose views and statement of the facts will be of great assistance to the Council.

Our own Bill will, it is hoped, be shortly before Parliament, and probably soon be made law. Its progress through the Houses, especially in Committee, will require very careful watching and handling. If we get the finance portion through, we will be in possession of much needed funds. Our position, from being bankrupt, will be fairly sound and if a strong reserve fund is created will, in a few years be absolutely "A 1 at Lloyds."

Being strong financially the Council will be enabled to extend the scope of its work and take up functions too long in abeyance, such as "Lobbying" in Parliament on all Bills or subjects touching on veterinary work; lobbying at all Breed Societies, Milk Associations, and Meat Trade interests; Government Departments both Home, Colonial, and Dependencies; Local Authorities, etc.

Our Council ought to allocate funds for "Research," so that men adapted for such work would be enabled to carry it on.

Moreover, the payment of actual out-of-pocket expenses of all members of Council attending Council duties is a democratic measure of the first order thereby enabling many capable men to be put up as candidates who are at present debarred on account of the double loss. The present Charter requires revising, and the principle of holding Council meetings in places other than London extended. Although the Council for some inscrutable reason, does not avail itself of the permission to meet once every three years in Edinburgh and Dublin, it would be of great advantage if the Council were compelled to travel about a bit.

The Council's relations to the teaching schools is limited to laying down the curriculum and the holding of the examinations while the questions as to what manner of men are permitted to enter the schools; what facilities for properly educating them when there; the educational qualifications of the men who are there as teachers; and the general facilities for educating men in the higher ethics of life are totally ignored. How can the profession advance and keep its proper place in our social organisation under these conditions? It is easy to see why "Vis unita fortior" is more honoured in the breach.

Such are the views and lines on which I ask for your support. They are framed for the profession, the whole profession and nothing but the profession. Cliques and cabals stand outside my scope and if elected I hope to be able to put enough enthusiasm and time at the work that will stir up the dry bones of Red Lion Square and give the whole of you a real live Council serving your interests. You are seething with discontent. Go where one

will one finds men everywhere grumbling but you are as men without a voice. You are not heard. You are all keenly alive to the many disadvantages under which we labour and you are bazy as to the means and ways of removing the grievances and disabilities under which we are placed. Very many of our grievances and disabilities arise from within ourselves, we have been content to do as we were told; we were disunited, and we have never had a policy laid down from our governing body round which we could have rallied and marched to victory. You know that there are many subjects which at present are better not touched on in print, but which cannot be permitted to continue.

You have the matter in your own hands and if the views expressed above commend themselves to you you will best support them at the ballot by plumping solidly for a pure country practitioner totally unknown personally to the bulk of you but prepared to support policy on the lines laid down.—I have the honour to be,

Yours, etc.,

Llanelly.

JOHN HILL.

#### "ACTINOMYCOSIS IN A MARE, TREATED WITH AUTO-VACCINO-THERAPY."

The article on the above by Mr. Scott, Bridgwater, in *The Record* of January 18th, is very interesting indeed, and I shall be glad if Mr. Scott would supplement it with the following information:—(1) Length of time under treatment; (2) Number of injections given.

The article not being dated, the only guide to these points is that the injections were "administered every seven or nine days," and that after "the seventh and subsequent injections," etc. Taking the intervals to average eight days, and the number of injections to have been ten, the time would appear to have been eighty days.

Bideford, Devon.

WM. ASCOTT, M.R.C.V.S.

Feb. 3rd.

#### THE DEARTH (?) OF PRACTITIONERS.

Dear Sir,—Your leading article headed "Contagious Disease" in *The Veterinary Record* of February 8th.

The statement that it is doubtful whether it is practicable at the present time, owing to the shortage of Veterinary Surgeons, to carry out properly the Tuberculosis Order if it were re-introduced, or to deal effectually with other contagious diseases which are now likely to crop up, will, I think, come as a surprise to some country practitioners. I don't know whether my district, (agricultural) is exceptional, but within a radius of 20 miles of me there are I believe more than a score of Veterinary Surgeons, all in practice, and all good reliable men, with good practices.

Now if there is such a shortage of practitioners in other parts of the country this ought not to be; for there is no doubt we down here travel the same roads as one another daily, and so, in a way, waste a lot of time. However patriotic one might be, one cannot just leave an established practice and go and start all over again in another district which may be without a Veterinary Surgeon. The only remedy to me seems some sort of State control similar to the panel doctor.

I was discussing your article with a neighbouring practitioner yesterday. He had just been to see, as an inspector, a case of Mange reported by a neighbour, and as he said, the other practitioner treats the case and he (the inspector) will call occasionally to see how it is doing—more waste, as he agreed.

Again, I know another veterinary inspector whose duty it is to inspect fairs held right outside the door of

another veterinary inspector five miles away. And so it will be, I suppose, under the Milk Act, unless the local nuisance Inspector does a Veterinary Inspector's duty. Yet we are short of Veterinary Surgeons! If this is so, there are at any rate some unqualified ones coming along. A short time ago a former client of mine showed me a letter from his son, a R.A.V.C. sergeant, in which the writer says he now knows the use and doses of all the drugs; has supplied himself with knives, suture needles, hypodermic syringe, trocar, seton needles, écraseur, etc., and thinks he has got all he will want when he returns to the farm, which he expects to do shortly.

Again, I called recently to see the new tenants of a farm at which I have always attended. I found this new man to be a demobilised R.A.V.C. sergeant. He had a small pharmacy fitted up, and began writing prescriptions which he assured me were specific for certain complaints.

The above two instances in my little circle may give R.A.V.C. Officers who intend to return to country practice food for thought, and make them consider whether it will not be wise for Veterinary Surgeons in the future to be few and far between. Then quack medicine vendors—but I mustn't go on.

One other thing, sir, if you take the practitioners in the 20 miles radius mentioned above, and then look for those same names in the list of the annual subscribers to the R.C.V.S., you will, I think, find them nearly all missing in the latter. If I hadn't written so much I should have liked to have given, in my opinion, one or two reasons why.—Yours faithfully,

10th February.

COUNTRY PRACTITIONER.

### THE PRELIMINARY EXAMS.

To the Editor of "The Veterinary Record."

Sir,—As there has recently been shown so much base ingratitude to the members of the Council of the R.C.V.S.—certain members of the profession making them the object of a criticism as unkind and uncalled for as it is unjust and untrue, one feels a not inconsiderable amount of hesitation in putting pen to paper to express even the slightest disapproval of any action that this body is taking.

However, as nothing but good can come out of honest criticism, and as I feel that there must be many members of the profession holding the same opinion on the question of ex-officers, N.C.Os., and men, who have served in the war, being granted total exemption from the Preliminary Educational Examination, I write to protest against a step which may possibly have no less ill-effect than making still more marked the already existing educational inferiority of the profession, as a whole, when its members are taken *en bloc* and compared with those of any of the learned professions.

One really despairs of ever seeing the profession of Veterinary Science with any other than its present status—socially and intellectually. For many years we have had the "Existing Practitioners," but it would certainly have been within the lifetime of many of the present members of the R.C.V.S. that it could have been said that no one was on the Register who had not passed some sort of an educational test. Now, with one retrogressive sweep by our Council, any such expectations are at once demolished, and we are condemned to continue with names on the Register without any educational guarantee behind them.

At their meeting on the 24th ult., the Council accepted three names on the strength of testimonials from schoolmasters, but I ask, knowing the popular opinion as to how much education is necessary to make a "Vet." can

these testimonials be anything more than mere personal opinions?

And, even those who are employed as teachers at Veterinary Colleges sometimes place a very low estimate on the amount of knowledge necessary to make a Veterinary Surgeon! I remember that just before a Class B examination at one of the Colleges a few keen students approached the Professor of Physiology, and represented that he had omitted to include in his lectures anything on the physiology of the spinal cord. Imagine their surprise when he replied, "Veterinary surgeons don't require to bother about that!"

If this is the view held by an eminent medical man, one can easily forgive an old lady who wrote to a military friend of mine, and requested that he should use his influence to get a job as a "Vet. in the Army" for her coachman, who had just been called up under the Military Service Act!

When taking a personal opinion as to whether an intending student has received sufficient educational training to make it likely that he will eventually make an efficient veterinary surgeon, one must not ignore the prevailing opinion of the general public. What this opinion really is was very well expressed by Maj.-Gen. Sir Frederick Smith, in a paper read last December before the Royal Society of Arts. He mentioned that a certain Roman General, deploring the state of veterinary knowledge in Italy, wrote that the treatment of animal diseases in that country appeared to be regarded as a mean and contemptible occupation. Sir Frederick Smith then proceeded to say that although 1500 years had elapsed since that was written, public opinion had undergone very little change in this respect. I think that these references should suffice to show how dangerous it must be to allow schoolmasters' certificates to be taken as sufficient evidence that certain intending students may be regarded as having sufficient educational knowledge to entitle them to exemption from any form of educational test prior to their presenting themselves for their professional examination.

Although those applicants for exemption have certain claims on their country, I do not think that these should be met at the expense of any profession.

I, myself, returned from the Boer War to find that I had to recommence Latin, French, Algebra, Euclid, etc., to gain admission to a College, but I managed to pass the examination in some four or five months, and certainly did not think that in having to do this I was being unfairly treated by an ungrateful country.

In taking this step it appears to me that the Council of the R.C.V.S. has shown more sentiment than reason; and if I were asked for a definition of sentiment, I should say: Sentiment is that emotion which sometimes guides, and even appears to justify, thoughts and actions against better judgment.

One can only regret that at the same Council meeting an application for admission to the examinations for the diploma of M.R.C.V.S., made by a lady who could probably produce most satisfactory educational qualifications, was refused on the ground that the College does not possess the power to admit women to the examinations for membership.

If it has the power to sweep away the entrance examination, the sooner it acquires to itself this other, more desirable power, the better it will be for the profession.

Some day the veterinary profession will take its place on an equal plane with the learned professions, but that will not be until forty years have elapsed after the institution of a preliminary educational examination of the same standard as those required by the learned professions, followed by a College course of five years, instead of the present four.

Yes, this reform will come in response to the unanimous call of the whole profession, as soon as it realises

that herein lies the remedy for that state of affairs whereby a Medical Officer of Health has a salary of £800 a year, and the Veterinary Officer is placed under his supervision and given a mere £200 for his whole-time services.

And, that this is the remedy, is because it strikes right at the very root of the cause—*inferior education*.

Yours faithfully,  
with B.E.F.

### ARMY VETERINARY SERVICE

#### ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following appointments to the Most Excellent Order of the British Empire, for valuable services rendered in connexion with Military Operations in East Africa, dated Jan. 1, 1919:—

O.B.E. (Military Division).

Capt. A. M. HOWIE, S. African Vety. Corps.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Feb. 7.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. W. Sherriff to be actg. Maj. whilst holding the appt. of D.A.D.V.S. (July 28, 1918).

Feb. 8.  
Temp. Lts. to be temp. Capts.:—W. F. Aston (Jan. 8);  
L. P. Weidenbach (Jan. 26).

Feb. 10.  
Temp. Capts. relinquish their commns. (Feb. 11), and retain the rank of Capt.:—R. J. Hall, on acct. of ill-health; J. Gosling, on acct. of ill-health contracted on active service.

Feb. 11.  
Temp. Capt. G. S. Walker relinquishes his commn. on acct. of ill-health (Feb. 12), and retains the rank of Capt.

Temp. Lt. to be Capt.:—C. J. Peach (Jan. 25).

Feb. 12.  
Temp. Lts. to be temp. Capts.:—J. Craig (Nov. 12, 1918);  
C. E. McCrea (Jan. 15).

To be temp. Lt.:—C. Macpherson, late temp. Lt. R.A.S.C. (Jan. 27).

Temp. Qrmr. and Lt. W. G. Thornton, R.A.V.C., to be Capt., under Art. 320, R. Wt., for pay and promotion (July 29, 1918).

### OBITUARY.

WILLIAM BEAL, Thrapstone, Northamptonshire.  
"Existing Practitioner."

Mr. Beal died 13th Jan., Aged 64.

*Several communications are unavoidably held over.*

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaugh-tered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Feb. 8			3	6	2	6			136	273	20	17	2
Corresponding week in	1918		6	6					157	288	13	12	3
	1917		16	17			3		85	181	29	41	12
	1916		13	13			5		86	193	12	83	236
Total for 6 weeks, 1919	15	2	26	80	14	81			1019	2205	121	106	36
Corresponding period in	1918		41	50			2	3	219	1825	126	96	30
	1917		84	89			4	7	524	1107	203	234	84
	1916		76	78			9	30	573	1525	109	498	1480

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive  
(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, Feb., 11, 1919

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND.	Week ended Feb. 8	...	...	...	...	...	...	...	Outbreaks 6	7	2	...
Corresponding Week in	1918	...	...	...	...	...	...	...	8	16	...	...
	1917	...	...	...	...	...	...	...	...	15	3	36
	1916	...	...	...	...	...	...	...	2	15	3	17
Total for 6 weeks, 1919	...	...	...	...	...	...	...	...	17	78	7	13
Corresponding period in	1918	...	...	...	...	...	...	...	24	74	1	1
	1917	...	1	1	...	...	...	...	6	92	19	126
	1916	...	1	5	...	...	...	...	11	100	21	54

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Feb. 10, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1598.

FEBRUARY 22, 1919.

VOL. XXXI.

## TWO IMPORTED DISEASES.

The Board of Agriculture has recently issued to the practising veterinarians of Great Britain two circulars, dealing respectively with rabies and foot-and-mouth disease. Both emphasise the greatly increased danger of importing disease in which the country now stands, and ask practitioners to be constantly on the watch for cases that are even suggestive. This is especially urgently worded as regards foot-and-mouth disease; for we are asked "to notify every case that is in the slightest degree suspicious, should you find yourself unable to say definitely that disease does not exist." This may lead to false alarms, which the Board evidently accept—for the sake of lessening the risks.

The procedure on the part of the Board is not usual, but the whole profession will see the justice of this call for co-operation. At any moment the question of whether disease does or does not obtain a formidable start may depend upon the alertness of a single practitioner. One clinical error may cost the country thousands of pounds in the case of the one disease, or human life in the case of the other. Remembering this, we cannot be too careful; and our errors should all be on the side of excess of caution.

## "GOING THE WRONG WAY."

Attention has again been drawn to this subject, the importance of which even to-day is perhaps not sufficiently recognised. A generation ago, comparatively few clinicians realised the danger of fluids passing into the trachea; to-day, it is much better understood. In many respiratory troubles the accident is so frequent that it should contra-indicate the use of draughts in such cases; in other conditions, also, it is probably more common than is generally supposed. The degree of danger arising from it is more debatable, and certainly depends a good deal upon circumstances. It is known that the healthy respiratory passages can absorb quantities of water very rapidly, and are also remarkably tolerant of at least some irritants. There is still much to learn as to how far these attributes may be modified by disease, what irritants are the most dangerous, and what non-respiratory affections most predispose to the accident. Mr. Harvey's remarks on the last two points are of value; and, though the subject must cause uncomfortable reflections to many old practitioners, it deserves more discussion than it has yet received.

## THE SHARE OF SUPRA-RENALS IN THE ACTION OF THE PNEUMOGASTRIC UPON THE HEART.

H. Roger contributed an article upon this subject to the *Journal de Physiologie et de Pathologie générale* for 1917. It is known that two antagonistic nerves, the sympathetic and the pneumogastric, act upon the cardiac muscle. The function of the sympathetic being conditioned by the supra-renals. Roger has thought it advisable to study the action of the vagus nerves upon the hearts of animals deprived of their supra-renals. The experiments were performed upon rabbits, and their supra-renals were removed by the abdominal route. Half-an-hour after the termination of the operation, which lasted ten minutes, the carotids of these animals were connected with a mercury manometer. Afterwards, first one and then the other pneumogastric was isolated and divided; or else both were left intact. In this manner a variety of experiments were performed, which led Roger to the following conclusions:—

In animals which have been "decapsulated" (deprived of their supra-renal capsules) section of both vagi produces a slight and transient descent of the arterial pressure; but as the normal excitant action of the sympathetic is not present, a secondary elevation of the pressure is not produced.

When the peripheral end of a pneumogastric of a decapsulated animal is faradised, cardiac paralyses are obtained which are longer at each successive stimulation, and which may reach a duration of thirty-seven seconds.

In the normal animal, successive excitations of the vagus produce diastolic depressions, each feebler and shorter than the last. These modifications of force and duration do not appear to be due to an exhaustion of the nerve. They probably depend upon an intervention of the supra-renals; because, if a dilute solution of adrenalin is injected into the veins of a decapsulated rabbit, it is found that the cardiac reactions recover the normal type, and, as the injection is prolonged, the influence of the pneumogastric is lessened till it almost disappears.

The intervention of the supra-renals also explains why successive excitations of the pneumogastric are followed by a secondary elevation of blood pressure in intact animals, and by a descent in decapsulated ones.

In the course of experiments upon decapsulated animals it is frequently seen that excitations of the pneumogastric, after having produced extremely long paralytic periods of the heart, cause others of no more than the usual duration. This return to the normal is especially observed when the animal has been left for some minutes to recover. It may

perhaps be attributable to a functional modification of the myocardium, or perhaps to a vicarious intervention of the diverse paraganglia.

In decapsulated animals, both pneumogastrics of which have been cut, the excitation of the peripheral end of one of the cut nerves determines, at the same time as the paralysis of the heart, a definite paralysis of the respiration. These animals may be restored to life by successively injecting adrenalin intravenously and practising artificial respiration.—(*Revista de Higiene y Sanidad Pecuarias.*)

W. R. C.

### THE WORK OF THE BRITISH ARMY VETERINARY CORPS AT THE FRONTS.

By Maj.-Gen. Sir FREDK. SMITH, K.C.M.G., C.B., F.R.C.V.S.  
(Reprinted from the *Journal of the Royal Society of Arts*).  
(Continued from p. 284).

When the train arrives at the *Reception Hospital* the cases are taken to the admission section, where the serial numbers, descriptions, and diseases are verified. Here they are marked for retention, transfer, or disposal, after being grouped into surgical, medical, contagious diseases, mange, etc. The reception hospitals retain nothing except very serious or slight cases—the former being unfit to be moved, and the latter likely to be so short a time under treatment that it is economical to hold them. These reception hospitals have to be prepared to deal with two or three days' admissions, and are generally for 500 to 750 cases. During their stay in reception hospital, the animals are tested by what is known as the mallein test, to ascertain whether they are free from glanders, so that forty-eight hours are spent here; this time is occupied in grouping the sick and attending to their immediate requirements. All animals that pass the test for glanders can now be disposed of by transfer to the other branches of the base hospital system. This is carried out by the *Transfer* section of the reception hospital, which takes over the various surgical, medical and mange groups. From these groups cases are drafted to the general and mange hospitals in any number desired, the available accommodation at each hospital being previously known.

The *Disposal* section of the reception hospital deals with the cases for destruction or sale, the latter being handed over to the Remount Department.

A "treatment card" for each patient accompanies it wherever it goes, so that any change in diagnosis, or the development of a new disease may be noted. The card explains what the patient is unable to express, and is also a complete record of the animal while under treatment; further, it indicates how long any case has been in hospital, for there is a time limit, generally placed at three months, beyond which it is not economical to retain an animal.

We must now look at the *General Hospital*.

These are designed for 2000 cases, and are generally divided into eight sections or sub-divisions, each being told off for a certain class of case—for example, lameness, surgical foot cases, other surgical cases, pneumonia and catarrh, debility, contagious diseases other than mange, etc. No case of mange is admitted to a general hospital; should one occur, it is transferred to a mange hospital. On arrival at a general hospital the cases are verified from their treatment cards, and posted to their proper wards. It is evident that the experience gained by officers in their special class of case is unique, and their expert opinion of the utmost value to the patient.

As an animal in any of the hospital wards becomes convalescent, it is told off to a definite portion of its own ward for special feeding and exercise, with the object of getting it fit for work, and twice a week the cured cases in each ward are sent to the *Discharge* section of the hospital. Here the animal receives an increase in food and exercise, and when quite fit for work is again tested for glanders; if passed free it is transferred to the nearest remount depot for issue to the troops.

Cases of debility take a long time to recover, and for these special *Convalescent* depots exist, where the animals are at liberty in the open during the day, and housed at night. Some of these convalescent depots occupy a large tract of country; one of nearly 3,000 acres, was the first chosen, and held 4,000 animals. The large majority of these during the summer are left out day and night, only the weaker animals being housed. During the winter the numbers in a depot are reduced, and all the animals housed. The principle of construction employed in these depots is to have a series of well-fenced enclosures, each with its own buildings and water-supply, with facilities for inspection, exercise, watering and feeding; each group has its own exercising ground. The object of this system of separation is to prevent extension of contagious diseases should any appear, and, to make doubly sure, each group is subdivided into smaller groups of fifty horses. This not only gives additional isolation but secures individual attention. It is very easy to overlook a case in a mob of 1,000 animals; it is practically impossible when the group is reduced to fifty.

You may, perhaps, be surprised at the care which is paid to the isolation of the horses into small groups, but you will remember that the animals in these convalescent depots are allowed their freedom, and in consequence mix with each other. The horse is the most sociable of animals when with his fellows; he has his friends whom he nibbles and rubs against, and also his enemies whom, if he is the weaker, he avoids. In spite of the systematic inspections which have been carried out before he gains admission to a convalescent depot, he may nevertheless, be harbouring infectious disease in a hidden form, which later becoming developed will certainly infect the other animals in the group. Should such a case occur, the risk of infection is reduced to relatively unimportant numbers by the system of small groups. In this way infection of convalescent depots is prevented or controlled. The rule, however, for preventing infection is that no animals are sent there except those requiring a rest owing to debility and exhaustion; no case of disease, and nothing requiring active treatment is ever knowingly admitted.

On arrival at a convalescent depot each animal is carefully examined in order to see that it fulfils the required conditions; those refused admission are returned to their hospitals. The serial numbers are verified, hind shoes removed to prevent damage from kicking, and the whole party remains in isolation for fourteen days, during which time it is given the full benefit of the depot system of nursing. At the end of this period the animals are passed out of the isolation block, and classified according to condition and strength; the weaker ones being kept together. This not only ensures the necessary quietude and rest, but a better distribution of food, for the strong horse will always rob the weak. Horses are very human in some of their characteristics. The diet is most carefully regulated, because an exhausted horse cannot digest whole or raw grain.

As the animals improve in condition they are gradually promoted to the block dealing with those being got ready for discharge; here the feeding is more liberal, and the exercise increased. From this group animals are selected once or twice a week for issue to remount depots, all being tested for glanders before being sent away.



These convalescent depots are organised on the principle that horses at liberty can do a great deal for themselves where proper arrangements exist; for instance, the exercise is carried out on a large semi-circular track which communicates with each enclosure, so that the fifty horses are exercised together, not by being ridden, but by trotting or cantering around with no weight on their backs, as you will presently see on the screen. The pace is regulated by one or two mounted men. Having completed their exercise, the fifty are returned to their own enclosure, and the next batch taken out. It will be obvious to you what a saving in labour is effected by such a system.

There is no part of the method of restoring war-worn animals which more requires a thorough and perfect system than a convalescent depot. Non-recognition of this in previous campaigns has been productive of enormous losses by the spread of disease. Not the least of the triumphs of the Veterinary Service in war has been its organisation and management of convalescent depots.

*Mange Hospitals*, as their name implies, are distinct institutions for the treatment of the highly contagious disease known as mange. It may or may not be known to you that mange is due to a special variety of insect or mite, of which there are two serious types in the horse. One lives on the surface, the other in the depth of the skin. The disease caused by the latter is infinitely more difficult to cure.

In the organisation of a mange hospital the group system is, as usual, adopted. The animals on admission are first classified according to whether they are suffering from the ravages of the surface parasite, or those of the deep-seated one. They are next grouped according to severity, all cases of equal intensity being kept together.

The first important point to decide on admission is the type of disease. This is settled by the use of the microscope. Every case has to go through this routine, and as diagnosed it is sent to its proper ward. If, in addition to mange, the animal is suffering from surgical trouble or other form of disease, it is grouped accordingly, so that the two distinct conditions may be simultaneously dealt with.

The routine treatment of mange may interest you. The cases are first clipped, either by hand or power-driven clippers. The body is then washed to get rid of dirt and such like, and finally the animal enters a swimming bath containing an agent which kills the parasite. The bath may strike you as a difficult measure to adopt, but it is far otherwise. A bath is made by digging a narrow trench to a certain depth, rendering its sides and bottom water-tight with cement, and arranging it so that the animals enter at one end, are completely immersed, and swim the length of the bath to the outlet, which is provided with a ramp, up which they walk to a dripping pen. Here the surplus material is removed, and the patients walk about until dry. Two, three or more baths may be needed to ensure cure, for though the insects may be killed, the eggs they lay are very resistant, and will hatch out later and re-infect the host. We know that a few days suffices for the hatching out, so that the bath is repeated until the skin is no longer itchy, and the new coat is seen to be growing on the bare surface.

The bath is not the only method employed in treating cases of mange; sulphur fumigations are used, and the French authorities have largely adopted this method. It requires the construction of special stabling, for the animals must be so placed that they do not breathe the gas. The head of each projects from the fumigating chamber, and a padding around the head prevents the leakage of gas. The whole surface of the body is exposed to the fumigation for half an hour.

Vapour baths are also employed, not only with the object of getting the animal's body clean, but also to facilitate the penetration of the subsequent dressing. Incidentally it may be mentioned that the boiler furnishing the vapour bath also supplies steam to the swimming bath, so that in winter the animals enter warm instead of cold water.

We have previously seen the system of grouping mange cases according to their nature and severity; they are also grouped in the ward according to the progress of the case. Beginning at the bottom of the stable, they gradually work up as they improve, until they reach the top, by which time it is hoped they are cured. Here they remain fourteen days under observation, any showing signs of itchiness being sent back for further treatment. Those showing no further signs of being itchy are drafted to the discharge section of the hospital, where they remain under further observation until considered safe for issue. During the whole time they are under treatment the patients are liberally fed, without which recovery would be greatly delayed; they are also exercised daily on the automatic system.

Mange is the chief animal plague of active service; it was not always so. Glanders at one time held the predominant position, but applied science has reduced the ravages of this disease to almost a negligible quantity, and we are no longer harrassed by its existence and persistent spread. Far otherwise with mange; we do not know the life-history of the insect apart from the host. We know how the disease spreads, and that in three months a pair of insects can give rise to one and a half million descendants, but we do not know how it is that animals sent into the field, absolutely free from mange and never during their service having been in contact with the disease, may contract it under the conditions of war. The same remarks apply to lice, both in animals and man. No amount of dirt by itself can lead to the production of a living insect, or any other living matter; life can only spring from pre-existing life.

I must, however, leave the subject of mange to conclude the account of veterinary hospitals.

The public conception of these would probably be represented by groups of tumble-down buildings, reposing in winter in a sea of mud, and surrounded by fetid manure heaps, the sick being overcrowded in dark stuffy stables, unventilated and undrained, such as the majority of the working animals in civil life in this country have to endure. The real picture is very different, and shows well laid-out blocks of stabling, comfortable, ventilated and drained. There is no sign of a manure heap, for in this place the highest degree of sanitation is observed.

Well-made roads intersect the buildings, grass lawns exist between the blocks, flower gardens are encouraged, the whole place giving the impression of comfort and civilisation.

These hospitals are the pink of neatness and scrupulous cleanliness, of order, system and method. The watering and feeding arrangements are as perfect as modern science can render them, the whole of the food being prepared by machinery. A system of competition and healthy rivalry is encouraged between the various hospitals to ensure that the highest possible standard is obtained. There are always original and progressive men to be found in every large community, and specially selected veterinary officers are placed in command of our hospitals with a free hand to improve, and instructions never to think that finality has been reached. In one hospital in France the very chains which tie up the horses shine like silver; none of it is hand labour; the chains go into a rotating vessel every day and polish themselves, and the motive power which cuts the chaff and crushes the corn burnishes the chains. In another hospital advantage has been taken of a supply of marsh gas from a large disused manure-pit; pipes are driven

deeply down into the vegetable mass, and the gas led to the hospital, where it is lighted and boils the food for the sick, which thus costs not a penny for fuel. If the animals are so well looked after, you can imagine the care taken of the men, and the comfortable conditions in which they live. They have their flower and vegetable gardens, recreation-rooms and library, and at least one hospital has a band. Far better work is obtained from men when they are well cared for.

Wherever we look in the various theatres of war—France, Italy, Egypt, Salonica, Mesopotamia, or East or South-West Africa, the veterinary hospitals are on a sure foundation. They are modified to meet local conditions and requirements, also climatic needs, but the same principles are observed—system, organisation, and whole-hearted devotion being the watchwords.

(To be concluded.)

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

(In each case the amount subscribed is £1 1s., except where otherwise indicated.)

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Feb. 19.

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Candidates.

Proposers.

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SQUAIR C. A., Reigate.	R. C. Irving

#### THE CONTROL OF CONTAGIOUS DISEASES OF ANIMALS.

Sir,—I think that perhaps your article on the difficulties attending the carrying-out of the provisions of the Acts relative to the Contagious Diseases of Animals would have been more convincing if, besides your reference to the present paucity of veterinary surgeons as a main cause of those difficulties, you had alluded to letters which have recently appeared in *The Record* calling attention to the little use that the authorities make of the veterinary surgeons who are still in practice.

If a client living a couple of miles from my house calls me, say, to a sick pig, and after examination I advise him that he ought to communicate with the police, a veterinary surgeon arrives from Sawbridge-worth (14 miles away) to do the necessary selection and forwarding of the "innards." If the practitioner has on the same day a similar call 14 miles in the other direction, and has his private practice to attend to as well, he will be kept busy.

I will give an example of how this sort of thing works. Some years ago, I received a wire to go to a farm, and some time after I had started another telegram was delivered instructing me not to come, as the cow was dead. When I got to the farm I was shown the carcass of a cow, just dead, lying in a shed beside the highway. The owner had gone to market, but the foreman told me that a butcher had been sent for to dress the carcass. The case suggested anthrax, and I told the foreman that the butcher must not interfere with the carcass until my return; and taking an ear from the animal I went home, and on examining the blood found that the cow had died from anthrax. I immediately returned and ordered the case to be reported to the police. Next day the authorities arrived, specimens were taken and sent to London for examination, and it was not until the third, or I believe fourth, day after the animal's death that the carcass was removed from the shed, dragged along the road to a field, and buried. Severe restrictions were of course put on the place for some time, and as one may imagine, the farmer was greatly indebted to me for my interference and for my promptitude in responding to his telegram. Had I delayed a little and got his second wire the probabilities are that the butcher would have noticed that there was

something wrong and refused to dress the carcass, and it would have gone to the knacker the same day; and, to the farmer at any rate, this appeared to be quite as safe a procedure as the one adopted.—Your truly,

Enfield.

W. R. DAVIS, M.R.C.V.S.

P.S. May I remark that all who write to you on this subject refuse to sign their names. Why?

#### IMPORTANT TO THE PROFESSION.

Sir.—Recently I made application to the several Committees of our Town Council—Watch, Sanitary, Highways—for an increase of pay, pointing out the high cost of living, etc. Result—Salary for Inspectorship doubled; inspection of cows 50% rise; contract with horses 50% rise. I trust all Inspectors will do, or are doing, likewise. It has been said that we are a modest profession (a very fine virtue) in the sense, I take it, that we do not press things enough—hide our light under bushels—and I fear there is something in it. Members of Urban Councils taking all in all hardly know what modesty means, altho' the majority are a fair and reasonable lot of men. But things must be explained to them.—Yours etc.,

The Gables, Reigate,  
Feb. 18th.

CHAS. A. SQUAIR.

Sir,—I am very pleased to see Capt. J. Hill's spirited address in to-day's *Record*. Under present conditions the profession must of necessity be teeming with discontent—Unity is absent, and as a result we are forced to act in a most humiliating way and it is extraordinary how practitioners manage to live on present fees at all.

As an example I may quote the remuneration (!) allowed by one local authority in this district—mileage 1/6 per mile after first 2 miles (one way only.) Inspection of flock of sheep re sheep scab—microscopical exam. reports to Board of Agriculture, etc 5/-! One can imagine what the miner and others would do if offered such a fee, and any other profession would of course absolutely refuse to act in ours: one protests in vain. With the return of the Tuberculosis Order and the advent of the Milk and Dairies Bill it really is essential that something should be done to put us on a fair footing. The medical profession is in reality one of the strongest Trade Unions in existence—why cannot we take similar action.

With regard to private practice—it is hopeless for members to charge proper professional fees in accordance with present conditions if more uniformity does not exist—why cannot a scale of fees be drawn up as in the case of Solicitors. At present it is chaos.

Yours etc.,

16/2/19.

PRACTITIONER.

[What the practitioners in Kent achieved in the matter of C.C. fees is not yet ancient history; and the action of the men in Derbyshire is only a few weeks old. On the next—possibly on the same page, we print the note of Mr. C. A. Squair on the same subject—in a very different tone. It looks as though this correspondent lacks "guts," as they put it in the R.A.F.].

#### DEARTH OF VETERINARY SURGEONS.

Dear Sir,—Your editorial article in *The Veterinary Record*, of February 8th, in which you state that it is impossible to treat with the Tuberculosis Order and other contagious diseases at the present time owing to the shortage of Veterinary Surgeons. I fear that you

have been sadly misled. I quite agree with Country Practitioner's letter in this week's *Veterinary Record*. He states, that within a radius of 20 miles there are a score of Veterinary Surgeons—all in practice. I have a country practice, and within a radius of 9 miles we have 3 Veterinary Surgeons—capable men; but we have never been approached by the Board of Agriculture to do any work for them. What is the reason? They must think we are a lot of children and they can do what they like with us. The time has arrived when a stop must be put to this treatment, otherwise it will be the ruin of the veterinary profession.

Mr. Editor—do you think it fair that the Board of Agriculture should have the power to appoint a certain Veterinary Surgeon in a certain district—to carry out the Contagious Diseases Act when other Veterinary Surgeons are in practice? When one has a good practice, and the clients have every confidence in him, should a contagious disease break out you have no alternative but your opponent is called in and carries out the business, and you have no say in the matter. It is not the remuneration, but it is the unprofessional, degrading and humiliation of it.

At a veterinary medical meeting reported in *The Veterinary Record* of August 26th, 1911, this question was brought up by Mr. Gold, who said it was a great hardship to a local practitioner for a man to be appointed as Veterinary Inspector to operate in the same district covered by another man's practice.

Mr. Stockman (as he was then) said he might not like it himself, but surely someone must be responsible, and unless they were prepared to adopt the only alternative—to appoint every man an inspector in his own practice—the present system of appointing certain men for certain districts must continue; and he did not think it practicable to appoint every man an inspector in his practice (this is what is done in the medical profession. Why not in the veterinary profession?) because however anxious a man might be to do his duty, when the interest of the public clashed with the interest of your clients there was just the probability that the public interest might suffer. I fail to see this argument. I am of opinion that it is the other way about—the inspector who is your opponent comes to your client and makes himself most agreeable, and might strain a point or two in his favour with the object of getting his work. I have heard of it being done. We must be on the same footing as the medical profession—when a doctor has a patient with a contagious or infectious disease. The Medical Officer of Health does not step in and take the case out of his hands, or even go to see the patient. I should like to hear the opinion of some of the gentlemen who are putting up for the Council of the R.C.V.S.

A NON-SUBSCRIBER  
to the Royal College of Veterinary Surgeons.

#### TEACHERS AS COUNCILMEN.

To the Editor of "*The Veterinary Record*."

Dear Sir,—Your footnote to my former letter stating that, "it does little to elucidate the main question, upon which there is a distinct difference of opinion—Is it desirable that the teaching colleges should be represented on our Council Board?" compels me to again ask the hospitality of your columns.

The whole object of my letter was to deprecate what I held to be, the wholly pernicious and schismatic doctrine, that teachers are more highly qualified to hold office in our Council than other practitioners.

It is beyond question that a number of the profession are not satisfied with the Council; the general opinion

is that it is not so much that they have done things which they ought not, as that they have left undone things which they ought to have done.

I have never heard a word of criticism against the individual members of the Council, but as a corporate body the Council is adversely criticised, and in the words of Macaulay, "Surely the uniformity of the phenomenon indicates a corresponding uniformity in the cause."

Anyone glancing at the composition of the Council for this cause, is immediately struck by the large number of teachers thereon, and naturally the following questions suggest themselves:—

(1) Are the teaching schools over-represented? A simple sum in proportion, having for its terms the number of teachers in the profession and in the Council compared with the total strength of the profession shows that they are overwhelmingly so.

(2) Should the schools be represented on the Council? This is very debatable, but as the schools are now, or should be component parts of the Universities, and not the private property of colleagues whose "practice" takes the form of owning a school, there is not the same powerful case for their representation as formerly. The Council, as a Council, should be able to look after the interests of the teachers and students as a whole, and without bias regarding any one particular school.

(3) Are teachers more highly qualified as Councillors than other members of the profession? As a general question the answer to this cannot be definitely given Yes or No, without leading to interminable and profitless argument. The only proof of qualification is performance, and he who renders greatest service on the Council is obviously best qualified, whether he be teacher or otherwise.

(4) Does the Council govern the schools, or do the school representatives govern the Council? That is a question which I leave your readers to answer for themselves.

The popular belief in the profession is, that the Council (like the profession at large), suffers under the incubus of apathy, and that its most discernable policy is that of "wait and see."

I am, Sir, yours faithfully,

A. B. MATTINSON, Major R.A.V.C.

Woolwich, S.E. 18. 12/2/19.

[We suggest the following reflections anent our correspondent's four questions. (1) Calculations of the numbers of teachers in the Council and in the profession are of value only if we adopt the view that teachers come upon the Council as school representatives and nothing more. (2) Universities, whatever powers they may gain over teachers and schools, have no control whatever over the R.C.V.S. curriculum and examinations. (3) We agree that this question might lead to "interminable and profitless argument," and also that "the only proof of qualification is performance." We simply said, and still maintain, that a fairly broad-minded teacher has much better opportunities of fitting himself for Council service than most practitioners. (4) Those who answer this question by saying that teachers rule the Council must face the fact that they never have anything like a majority upon it, with the unavoidable inference that teachers generally make the most effective Councillors.—Ed.]

#### CUMBERLAND PRACTITIONERS AND THEIR FEES.

For some time past a movement has been on foot to combine the veterinary surgeons in Cumberland and to revise and make more uniform their professional charges. The proposal has been to include in this scheme the areas of Carlisle, Brampton, Alston, Penrith,

Wigton, Abbey Town, Aspatria, Ireby, Keswick, Cockermouth, Brigham, Workington, Whitehaven, and Millom, each of which in normal times carries one or more practitioners.

A meeting, having this object, was held at Aspatria, convened by the following circular:—

"Dear Sir,—As the proposals for standardising and equalising the professional fees charged throughout the county, drafted and sent round by Mr. Thompson, did not prove acceptable, and were generally thought not to go far enough, a revised scheme has been prepared on an extended scale and more in the spirit of the replies received. It is now proposed to submit this revised scheme to a meeting of the county practitioners at the "Sun Hotel," Aspatria, on Friday, January 31st inst., at 3 p.m. sharp, at which your presence is requested.

In the event of your inability or disinclination to be present, you are asked to signify the same, either to Mr. Thompson, Aspatria, or to the Convener of this meeting. In the absence of any reply from you, it will be taken to mean that you do not acquiesce in the movement and do not wish to associate yourself with it in any way.

The following gentlemen have already, provisionally, approved the scheme, and it is confidently anticipated that a large majority, if not all the county practitioners, will hereafter fall into line:—

J. Soulsby, Cockermouth,	W. Litt, Whitehaven.
H. Barrow, Ireby,	H. Thompson, Aspatria,
James Bell, Carlisle,	F. Ashley, Dalston,
and J. Donald, Wigton (Convener of the meeting).	

J. DONALD, Wigton."

The following gentlemen attended: J. Soulsby, Cockermouth; H. Thompson, Aspatria; F. Ashley, Dalston; J. G. Bell, Carlisle; J. Trougher, Workington; H. Barrow, Ireby, and J. Donald, Wigton. Apologies for non-attendance and expressing sympathy with the objects of the meeting were received from Messrs. Craig Robinson, Carlisle; T. W. Hewetson, Brampton; Wm. Litt, Whitehaven. No reply was received from Messrs. Steel, Wigton; Little, Alston; Hewson, Carlisle, or Hodgson, Brigham, and by the terms of the circular it was concluded that they did not wish or intend joining the scheme.

Mr. Thompson, who was voted to the chair, said that almost every section of the community were now combined together to protect their own particular interests. The farmers had their Union to look after their interests and he thought it was time the veterinary profession did something in that line also. It was everywhere acknowledged that the veterinary surgeon was very inadequately paid for some of his services, and it was worthy of note that those veterinary surgeons in the county who run shoeing forges along with their practice had some time ago combined with the farriers to raise their prices.

The object of this movement was not intended as a war-time expedient, but is an attempt to federate the members and adopt measures that will secure for us fair treatment and what may be considered reasonable remuneration for our services and charges for the drugs, etc., supplied under normal and settled conditions of practice. We are out to bury the past and redeem the future, and what is most needed is some plan for equalising the charges in the different county areas, as also of adjoining practices—some system of protecting us against ourselves, if he might so put it.

The adherence of 9 out of the 13 qualified practitioners at present in the county is, he considered, a very satisfactory start, which, combined with the measure of support promised by those members who are now serving with His Majesty's Forces on their return home, augured well for the ultimate success of the scheme.

He would ask Mr. Donald to give an outline of the proposals which it was intended to submit to the consideration of the meeting as a basis for discussion :

*A set of Rules for regulating the conduct of practitioners to one another, etc., who become members of this proposed Federation.*

Under this head the following code of ethics was unanimously agreed to :—

1. No solicitation of other people's clients permissible.
2. No undercutting below the scale adopted.
3. When a new client presents himself that is either known, or is reasonably suspected to be the client of another federated member, the reason for the change is to be ascertained, and the preceding practitioner shall be notified by the client that his services are no longer required before the succeeding practitioner takes over the case. The succeeding practitioner will further be expected to privately notify his brother member that he has been requested to attend there, and that he has undertaken the duty or consented on above understanding.

Where another member is in attendance no such case shall be taken on except as a consultation, unless this rule of notification has first been observed.

4. In the event of an emergency call to another's client the case to be handed over to the regular attendant as soon as he is available, and the costs of such attendance to be sent through the regular attendant.

5. Every neighbouring practitioner shall be expected to render all reasonable assistance in case of illness or unavoidable absence.

6. Consultations. Consultants will be expected to first explain their views to the attendant practitioner, and to agree with him how the position is to be put before the client.

7. Subscribers to this scheme are to be held to bind their assistants to a strict observance of its conditions.

8. Each subscriber to this scheme must agree that in the event of any complaint against his conduct, the matter shall be submitted for adjudication to a neutral referee elected by the other members, and that he will abide by the decision of such tribunal.

NOTE. These rules are only to operate as between subscribers to this scheme. Freedom of action and practice are allowed in dealing with competitors who are not, or have not joined in this combine.

*The Food Production Department's Panel System.* At this stage the meeting had before it the panel system of the F.P.D. for the employment of Veterinary services. It was unanimously agreed that (notwithstanding the official intimation that 90 per cent. of the veterinary surgeons to whom these appointments had been offered had accepted them without demur), the members have nothing to do with their scheme, feeling that the terms and conditions offered were little less than an insult to the profession. It was decided that no one holding this appointment shall be admitted a member of this Federation.

It was incidentally mentioned that the Penrith branch of the Agricultural Union had already been employing a layman to do some veterinary work for them, and it might reasonably be expected that the local branches would next be approaching veterinary surgeons to do the work of their members on the basis of the F.P.D. Panel system, or some similar scale.

*The adoption of a general scale of visiting charges on the basis of the mileage one way.*

After discussion of the subject from various points of view and a free exchange of opinion, it was decided the best course was to fix a *minimum* scale, below which no member would need to go in any case, and under which it would not pay non-federated members to try to under-

cut : leaving members free to charge anything above that scale that they might feel themselves entitled to, or their circumstances warrant. A scale of fees was drawn up on these lines and adopted.

*The adoption of a scale of fees adaptable to the requirements of general practice that are considered as fair between clients and ourselves for the services rendered.*

Under this head a schedule of fees was fixed for :—examinations as to soundness : operations (detailed list) : consultations : castration (all species and ages) : parturition and the various conditions arising in obstetrical practice : treatment—by inoculation, by fumigation, by injection, etc. Sanitary, County Council, and Board of Agriculture work : application of the tuberculin test, and the use of tuberculin, mallein, etc., for diagnostic purposes. Post-mortems. A scale recommended to be charged for prescribed medicines : hypodermic medication : use of apparatus on loan : proprietary and stock medicines, etc.

The relation which federated members should take up towards non-federated men was discussed, but no resolution was at present come to. It was decided to send a report of the proceedings to the Journals with the Ethical Rules ; but that the scale of fees and prices be only supplied to members.

Votes of thanks to the Chairman for presiding, and to Mr. Donald for the part he had in calling the meeting and the trouble he had taken in arranging the scales, concluded the meeting.

#### Rabies in Paris.

The Paris correspondent of *The Lancet* writes :—"The increase of rabies among dogs in Paris has now become alarming, and M. Martel, chief veterinary surgeon to the Prefecture of the Seine, has pointed out to the Academy the grave danger which threatens. In the Paris area 411 cases of rabies were reported in 1918, and 61 during the first 25 days of the month of January just past ; compare this with the 3 or 4 cases per annum with which we had to reckon in 1913 and 1914. 350 bitten people have attended the Pasteur Institute, and several deaths have occurred three of which are recent. Stray dogs without leash or muzzle are numerous in Paris. The disease is thought to have been carried by dogs abandoned by their masters in the war zone, and by others which have escaped from the camps established near Paris to test the effect of the new asphyxiating gases. M. Martel demands the application of strict police measures ; all dogs should be numbered, registered, and obliged to wear a collar with a medal attached certifying that the tax has been paid by their owners ; in addition they should all be muzzled. Stray dogs should be ruthlessly collected by police agents and brought to the special depot (*La Fourrière*) to be destroyed if not claimed within a week."

In the House of Commons, Wednesday, Feb. 19.

#### RABIES IN DEVON AND CORNWALL.

Colonel Sir ARTHUR GRIFFITH-BOSCAWEN, Parliamentary Secretary, Board of Agriculture, answering Mr. Carew, said :—"At present the outbreak of rabies in Devon and Cornwall cannot in any sense be said to be stamped out. The disease may show itself at any time within six months from its inception. The last case was confirmed on the 11th inst., and, in addition, there is still a number of suspected cases under investigation by the Board's veterinary department. The total number of cases confirmed by the veterinary officers of the Board to date is 118—Devon 94, Cornwall 24. The Board have reason to think that the responsible local

authorities are carrying out their duty as efficiently as their staff permits. I am informed that to date 18 civilians, two soldiers, and one sailor have been bitten and undergone the Pasteur treatment for hydrophobia.

### ARMY VETERINARY SERVICE

#### Extracts from *London Gazette*.

WAR OFFICE, WHITEHALL, Jan. 1.

His Majesty the King has been graciously pleased to approve of the undermentioned reward for distinguished service in connection with Military Operations in France and Flanders:—

\* \* \* \*

#### AWARDED THE MILITARY CROSS.

T. Capt. John Edgar Young, R.A.V.C., att'd. H.Q., 34th Bde., R.F.A.

Feb. 13.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. A. Hart relinquishes his commn. on account of ill-health contracted on active service (Feb. 14), and retains the rank of Capt.

Feb. 15.

Temp. Capt. R. L. L. Hart to be acting Major while employed as D.A.D.V.S. (Jan. 5th).

Feb. 17.

Temp. Lt. P. McLaughlin to be temp. Capt. (Jan. 22).

Feb. 18.

Temp. Capt. (actg. Maj.) A. de R. Gordon, D.S.O. to be actg. Lt.-Col. while holding the appt. of A.D.V.S. (Feb. 25, 1918); Temp. Capt. A. de R. Gordon, D.S.O. from Gen. List to be temp. Capt. (April 19th, 1915); Temp. Capt. A. de R. Gordon D.S.O., to be actg. Maj. (July 1st, 1916). The follg. relinquish their commns. (Feb. 19th):—Temp. Capt. E. A. Phipps, on account of ill-health contracted on active service, and retains the rank of Capt.; Temp. Lt. G. J. Harvey, on account of ill-health, and retains the rank of Lt.

Feb. 19.

Capt. and Bt. Maj. G. E. Tillyard relinquishes actg. rank of Maj. on ceasing to hold appt. of D.A.D.V.S. (Feb. 10); Temp. Lieut. W. E. Barry to be temp. Capt. (Feb. 1st).

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Feb. 17.

Capt. W. K. Townson relinquishes his commn. on acct. of ill-health contracted on active service (Oct. 11, 1918), and retains the rank of Capt. (substituted for that which appeared in *Gazette*, Oct. 10).

#### OBITUARY.

WALTER SEYMOUR ADAMS, Col., late A.V.C., Roslin Road, Bournemouth.

Graduated Lond: April, 1866.

Died 15th February, Aged 74.

THOMAS AUGUSTINE O'BRIEN, T. Lt., A.V.C., Jimerick. Died on Active Service, 6th October, 1918.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab. (b)*	Swine Fever.	
	Cases Confrmd		Out-breaks	Animals.	Out-breaks (a)	Animals.	Out-breaks (b)	Animals.	Out-breaks (b)	Animals.		Out-breaks (a)	Slaught-tered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended Feb. 15	1	1	3	13	2	8			209	378	18	18	3
Corresponding week in	1918		9	9					177	330	24	10	3
	1917		18	20					85	194	28	31	7
	1916		16	17	1	24	1	6	72	160	8	73	214
Total for 7 weeks, 1919	16	3	29	43	16	89			1228	2531	139	124	39
Corresponding period in	1918		50	56			2	3	1096	2155	150	106	33
	1917		102	109			4	7	603	1301	231	265	91
	1916		92	95	1	24	10	36	645	1685	117	541	1694

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Feb., 18, 1919

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND.	Week ended Feb. 15	...	...	...	...	...	...	Outbreaks	2	4	1	25	
Corresponding Week in	{	1918	...	...	...	...	...	6	19	...	...	...	
		1917	...	...	...	...	1	1	17	4	12	...	
		1916	...	...	...	...	...	...	3	19	4	18	
Total for 7 weeks, 1919		...	...	...	...	...	...	19	82	8	38	...	
Corresponding period in	{	1918	...	...	...	...	...	30	93	1	1	...	
		1917	...	1	1	...	...	1	1	6	109	23	133
		1916	...	1	5	...	...	...	...	14	119	25	72

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Feb. 17, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1599

MARCH 1, 1919.

VOL. XXXI.

## OUR COUNCILMEN.

A contributor, commenting upon some recent effusions composed mainly of loose talk on the alleged but undefined misdeeds of our Council, offers a bet at tempting odds that none of these writers who are spilling ink under a *nom-de-plume*, and a large proportion of members who have not written but who are described as "seething with discontent" and "everywhere grumbling," could name the men who at present compose our legislative body. On consideration one does not quite see that they can be expected to do so. The only complete list published to the profession appears on the voting papers issued at the end of their year of office—just before the next election. It did appear in the Register, which is issued early in the year, not less than eight months after the elections; and a list of election results—the names of 8 of the 32 members—appears in the professional journals directly after the elections. The Annual Report contains no list, indeed, as issued at the same time as the voting paper it would appear superfluous. Thus, to preserve a record, it is necessary to retain the half of the voting paper, and correct it from the list published in the professional journals in June.

The hiatus would be avoided—when the new Bill becomes law and each member gets his copy of the Register—if the Register were published *after the elections*, say in July, after the July exams., instead of the December ones: and further, might show who were defaulters in respect of the Annual Fee.

As there is a more intelligent interest in the coming election than is usually expressed, and as not a little injustice has been exhibited against a body of men who have served the profession for the last four years probably better than any since the signatories to the original Charter of 1844, a list of the present Councilmen is appended.

J. Abson, H. Summer, L. J. Blenkinsop,  
G. A. Banham, J. W. Brittlebank, J. C. Coleman,  
A. W. Mason, P. J. Howard.

S. H. Slocock, W. J. Mulvey, E. S. Shave,  
J. H. Carter, T. S. Price, J. McKinna,  
J. McI. McCall, P. Wilson.

J. M. Fadyean, F. W. Garnett, R. O. Trigger,  
W. Packman, J. Clarkson, J. T. Share-Jones,  
H. Thomson, W. Burt.

S. Stockman, S. H. Gaiger, W. F. Barrett,  
A. Lawson, A. Giffon, O. C. Bradley, J. Dunstan,  
S. Wharham.

## THE WORK OF THE R.A.V.C. AT THE FRONTS.

This week we conclude the lucid exposition of Major-Gen. Sir F. Smith, C.B., on the organisation of the Veterinary Service. Much of the information is already known to many of our readers: but the address is primarily intended for lay readers—an endeavour to inform the public, and to place the professional work in its proper perspective—and for that reason we have printed it in full. In the pages of the Journal of the Royal Society of Arts it will reach the eyes—possibly arrest the attention, of a group of intelligent readers. So far as the audience is concerned, it comprised members of the profession, members of the Society of Arts, and friends of the R.S.P.C.A., which has contributed largely in the matter of supplies to the success of the R.A.V.C.

It may be asked if it is not possible to widen the scope of the information by a further use of the now popular kinema. The views of the hospitals and rest camps would be entirely new to the general public; one, of a horse hospital under canvas is unique: so is one of horse lines under palms. Our old acquaintances, the mange parasites, is not so fresh, but another, of a group of African ticks, alive and in active movement, is particularly telling. The film of horses at exercise, on the plan suggested by Major, now Colonel, F. Eassie, in S. Africa in 1900, is also very telling. The horse ambulances, hospital operation, and equipment, are all informative, and with judicious additions and inclusion of a few figures would make a short and interesting "turn."

*It is useless to blame the general public for indifference to matters of which they are ignorant.*

This text has been urged in these columns for years past: and is slowly coming to notice. In respect to farmers, it is embodied in the address by Mr. G. P. Male, which appears on another page.

## TUBERCULOSIS IN A HORSE: ENORMOUS ENLARGEMENT OF LIVER.

By Captain J. F. D. TUTT, M.R.C.V.S., F.R.M.S.,  
Winchester.

*Subject:* Seven-year-old cart gelding.

*History:* The animal was bred upon the owner's farm; it had never received cow's milk when a foal.

Beyond an operation for hernia when a foal, the animal had never had a day's illness, nor appeared unfit, until early in 1915, when one evening the owner gave it a "Cupless" ball. From that day he refused to eat corn, but would eat hay in any quantity.

The patient was seen a few day's later, as the owner thought that "either the teeth required rasping, or that the throat had been punctured with a spar, with which the ball had been administered.

Examination revealed neither of these conditions, and at this time the animal was in good condition and was working daily. Faeces were quite normal.

The animal continued working until Jan. 21, 1915, when advice was again asked for, as he was now losing condition and still refused corn, but would eat hay with avidity.

Beyond a little yellowish discolouration of the mucous membranes, nothing was observable. There was a suggestion that he had had worms some time previously, and at the owner's express regret the usual vermifuge drench (*Ol. terebinth zii*, *Ol. lini Oj*), was given.

This acted freely, the horse scoured for a few days. A few oxyuridae were passed. From this time, the faeces never again returned to a consistency firmer than those from a cow.

He was then put on a course of Infusion of gentian and Sodii bicarbonate: and Extract of malt was given in each meal, *zii* doses.

No improvement followed, so it was decided to test for Tuberculosis.

This was done subcutaneously on Jan. 25th, and the following is the record of the temperatures:—

Initial temp.	9 hrs.	12 hrs.	15 hrs.	20 hrs.	24 hrs.
101.4	102.2	102.4	102.6	102.8	103.3

The temperature reaction, though not high, was regarded as very suggestive of the existence of tuberculosis.

The ophthalmic test was quite negative.

Ehrlich's test was applied to the urine, and a positive result was indicated by the port wine colour of the fluid and redness of the froth.

The animal continued to lose condition, and on Feb. 5th commenced purging, and from that date rapidly lost condition.

Feb. 9th. Appeared very itchy, and rubbed himself raw in several places. No parasites were detected.

Feb. 11th. Slaughter was advised, and was carried out the following day.

*Post-mortem examination.* Heart and lungs were sound. Liver enormously enlarged and cirrhotic: it weighed 102 lb. Mesenteric lymphatic glands were tuberculous. The spleen and kidneys were normal.

#### THE WORK OF THE BRITISH ARMY VETERINARY CORPS AT THE FRONTS.

By Maj.-Gen. Sir FREDK. SMITH, K.C.M.G., C.B., F.R.C.V.S.  
(Reprinted from the *Journal of the Royal Society of Arts*).  
(Concluded from p. 292).

The *Diseases and Injuries* of active service can only be very briefly dealt with. You will have gathered from the few remarks already made what a big subject it is, representing nearly the whole of animal inefficiency in war. A visit to a veterinary hospital in any theatre would reveal very few cases due to battle casualties, not for the reason that these do not occur, for the horse is a

far larger target than a man, but because such cases are usually dealt with on the field by destruction, only those being reserved for treatment which offer a prospect of complete recovery. Nothing short of complete recovery is of the least value where animals are concerned. In the matter of treatment, modern methods are adopted, and I may tell you that surgery has made many advances during the present war. Injuries and poisoning from gas attacks have been frequent, and it may be known to you that horses in the front line wear gas-masks. I will show you presently on the screen the destructive effect of gas on the surface of the body; the pictures are unique, and the artist a non-commissioned officer in the Royal Army Veterinary Corps.

Of mange I have already told you sufficient, and you will be able to visualise the insects at work when I come to the lantern demonstration. Of the pest *Lice* I have not previously spoken, though the subject is full of human interest: men are more easily affected than horses, and in days long gone by the infestation in peace time of people of position was not regarded as disgraceful, whilst among the poor not only was the presence of lice looked upon as an indication of good health, but the wanderings of these disgusting parasites on the head gave early warning of a change in the weather! In the days of Queen Anne we have it left on record that hunger and lousiness were two distempers which affected the soldier in war. The louse insect is not difficult to kill, but the egg is very resistant, and so causes repeated infection. *Ringworm*, another troublesome affection, is due to vegetable fungus, of which I will show you a picture. *Glanders* you have already heard a little about, and a picture of the organism which produces this loathsome affection will be shown to you. Perhaps I may here explain that the reason why this disease in any army has lost its terror is the advance of scientific knowledge.

A Russian veterinary surgeon discovered the fact that if the organism of glanders were grown in broth, and subsequently the whole mixture killed by prolonged heat and then filtered, the filtrate, known as mallein, if injected into a normal animal produced no effect, whereas if the horse were glandered a painful swelling arose at the seat of inoculation. This constitutes the mallein test to which I have so frequently referred. It was the greatest veterinary discovery of the nineteenth century, for it has enabled us to detect the presence of the disease at a stage when the animal cannot communicate it to others, and in this way to obliterate the pestilence. It is sad to relate that the discoverer subsequently died from glanders contracted during his investigations.

*Strangles* is a highly infectious disease common among young horses, and exists to an extraordinary extent among the animals collected on mobilisation. Its cause is a very small organism capable of being seen only under a high power of the microscope. It was the most serious pest we had to deal with at the beginning of the war. It frequently leaves behind it permanent inefficiency.

*Contagious Pneumonia* of the horse has led to an enormous monetary loss. During the early months of the war an average of thirty deaths a week for several months were occurring in one hospital in this country from this cause alone. The fat and young were the chief victims. Pneumonia is also the chief cause of loss among animals on board ship. Horses are not the only victims of contagious pneumonia; cattle are affected, and our transport oxen employed in the African campaigns have suffered seriously from this disease.

This reference to German South-West and German East Africa suggests the desirability of mentioning the other animal plagues existing in that continent, which have been responsible for enormous losses among military animals.

No more terrible pest exists than *Cattle Plague*, which is capable of killing off nearly the whole stock of a country. It has been a serious trouble in German East Africa, military operations having spread it far and wide. Fortunately it is possible, by inoculation, to protect animals against the disease.

The ravages of the *Tsetse Fly* you may have heard of. The part played by the fly is that it is the carrier of the disease, which is due to a large and peculiar organism in the blood, of which I will show you a picture. The fly is a blood-sucker, inhabiting well-defined zones of country, through which no animals can pass without becoming infected. The disease simply sweeps away the animal population, nor are its ravages confined to animals. A fly of the same species inoculates man with sleeping sickness. There are no less than ten clearly defined animal plagues due to different species of this organism. All of these plagues are not found in Africa: one affects India, another South America, and no cure is known for any of them.

*East Coast Fever* is an African disease of cattle, slow in action, but capable of inflicting dreadful losses. It also is due to an organism in the blood, but one of very small size. The disease is transmitted solely by the bite of an infected species of cattle tick, of which I will show you a picture, and you will also see on the screen how the ticks on animals are destroyed by arsenical baths.

The last African plague I will mention is commonly known as *Horse Sickness*. The organism which produces this is so minute that it has never been seen, and it readily passes through the pores of a porcelain filter. The disease is seasonal, and probably transmitted by a species of mosquito. It is a plague of terrible intensity; in a few hours hundreds of animals may succumb.

Less alarming than the African plagues I have mentioned, but still very serious, is *Anthrax*, a disease widely spread over the world, affecting almost all animals, including man, but especially horses and cattle. There have been heavy visitations of anthrax among our troops operating in Palestine.

There is a curious group of diseases which exhibits itself by *Ulcers* on the limbs and surfaces of the body. Two members of the group are highly contagious, one is due to a peculiar vegetable organism circulating in the lymph vessels, of which I will show you a picture.

Should a trace of the discharge from one of the many ulcers gain access to a wound in a healthy animal it sets up the disease. You can picture what it means if a case finds its way into the surgical section of a hospital. The affection lasts for months; it has given considerable trouble in Italy, but less in France, among our forces, though the French Army has suffered severely.

When large bodies of animals occupy the same camp for any length of time, especially in bad weather, the ground becomes foul to an extraordinary degree. This produces inflammation of the legs and parts above the hoof, the skin becomes gangrenous, and the hoof may even rot off. You will understand how difficult it is to combat such conditions, when military necessity demands that animals shall remain in a foul and contaminated locality; the disease can be controlled only by clean camping grounds and dry weather.

I must now make reference to the very large group of cases due to *Exhaustion*, the result of over-work. Fortunately there has been no insufficiency of food in the present campaign, owing to it being mainly a war of position; but when war is mobile it is impossible to carry bulky material like hay in anything like sufficient quantities, and grazing has to be resorted to if time permits. Even an abundance of food is no compensation for over-work and strain. The condition of the ground in France, and especially in Flanders, is common knowledge. Two and three teams of horses have had to be

employed to do the work of one, and when animal labour has absolutely failed, the guns and waggons have had to be man-handled. Age is another potent factor in the production of exhaustion; an old horse may easily be killed by one day of over-work. The exhausted war horse is a pitiable sight, and many never recover. A cold or wet night kills off scores. Nursing, rest, shelter, and proper diet are the only remedies, and I have given you a detailed account of how this treatment is carried out in convalescent depots.

*Saddle and Harness Galls* are the bane of active service. It would require a special series of papers to give you any real insight into the many causes operating in their production, and it needs several years' experience to learn practically how they may be prevented. Saddles and collars which fit horses in good condition do not fit them when the parts become smaller through loss of flesh nor will the most perfectly fitting saddle maintain a back free from injury when men have to remain mounted hour after hour. Under these conditions the skin actually dies through continuous pressure. I have briefly mentioned these two causes of sore back as giving you some notion of the magnitude of the difficulties of prevention, but there are many other causes in operation which are theoretically preventable, though in practice not always so. It is a common error to compare the shoe of a horse to the boot of a man—they both protect the feet, but there the analogy ends. The saddle of the horse may aptly be compared to the boot; both must fit, neither must be too large nor too small; a wrinkle in the sock or a knot in a lace may inflict considerable injury, for the reason that the boot must be free from all irregularities. You can imagine what it means to a back when the saddle blanket wrinkles, or a cake of mud exists between it and the skin, or a loose end of a strap finds its way under the saddle. Yet any of these things may readily occur when animals are saddled up in the dark. Such causes, however, cannot compare with the injury resulting from the arches of the saddle resting on the spine. The condition of back arising from this cause has to be seen to be realised.

I have yet to mention a serious disease among horses known as *Lock-jaw*. It is invariably the result of injury, and the chief seat of such injury is the foot. I cannot tell you how many thousands of animals in France have suffered from penetrating wounds of the feet due to nails picked up on the road. Fortunately, all such cases do not terminate in lock-jaw, but the inefficiency resulting from this class of injury has been so great that in France public notices have been erected urging that nails should not be thrown about. Many contrivances have been adapted to the feet, with more or less success, to prevent injury when a nail is trodden upon, and a form of electric road-sweeper has been devised which will pick up nails, on the principle of the magnet.

Lock-jaw frequently follows gun-shot wounds; especially has this been the case during the present campaign in France. The infection comes from the soil, particularly that which has been highly manured. An animal may be protected against this disease if a special antidote—prepared from the organism which produces the disease—be injected under the skin very early after the infliction of the injury, and tens of thousands of these doses have been given to horses during the present war.

A peculiar but well known eruption on the tongue, and mouth has proved at times a serious source of inefficiency during the campaign. The disease has a long name, which I will not inflict on you. A far more important matter is the extreme contagiousness of the disorder, and the great loss in "condition" which it occasions through the animal being unable to eat.

The last disease I shall refer to is a peculiar form of *Ophthalmia* affecting horses in France, which has resulted in very many cases of blindness. Towards the end of the campaign in South Africa the same disease was present, and occasioned a vast amount of inefficiency. It is no new disorder; its great terror in the field is its incurability and the extraordinary number of animals affected.

I have made no mention of the commoner troubles which fill a veterinary hospital, such as lameness, foot injuries and diseases, kicks, injuries of the organs of digestion and such like, but have focussed your attention on the larger and more serious groups, in order to give you a notion of the kinds of disorders with which veterinary hospitals have to deal in war.

Side by side with improved methods of treating disease, there have been going on during the whole campaign inquiries into the nature of diseases, and the study of their prevention, diagnosis and treatment. There are *Bacteriological Laboratories* in each theatre of operations, which have done valuable work. The subordinate staff of the laboratory in France are nearly all ladies. I trust that one outcome of the war will be the entry of ladies into the veterinary profession, for the smaller animals are especially suited to their care.

The whole of the Mallein employed throughout the Service is made in an army veterinary laboratory, hundreds of thousands of doses being sent out in the course of a year.

I must say a few words regarding the *Equipment* used in the field. Every veterinary officer is provided with a chest, containing, medically and surgically, all that he can possibly require, and up to date in every respect. Most of the drugs are in tablet form, so that no weighing is required; and the instruments, bandages and dressings are of the most approved type. This officers' chest is the outcome of many years experience and trial, and has proved a great success. When the officer is mounted he is provided with a leather wallet attached to the saddle, containing an emergency surgical outfit and drugs, all of the latter being hypodermic. Apart from the personal equipment of the veterinary officer, every unit has one or more chests containing dressings and emergency medicines, while the subordinate staff are furnished with a leather wallet containing simple remedies. Hospitals are provided with a complete medical and surgical outfit. I will show you these equipments on the screen.

Veterinary equipment is supplied in the field from an advanced depot of veterinary stores, where all replenishments can be effected; the advanced depots are supplied from base depots, while the base depots are supplied from this country. These operations are on an immense scale, and it is gratifying to add that the supply of stores for overseas has never once failed.

I wish time had permitted me to tell you something of the revolution the Veterinary Service has effected in the *Transport of Animals by Sea*. The horse is a bad sailor, but under skilled management the mortality has been reduced beyond belief. Large numbers of animals have been lost by enemy action at sea, and in this connection I cannot help referring to the captain of the s.s. "Canadian," who refused to leave his sinking vessel as he could not find his dog. He was last seen on the bridge standing at the salute!

I feel the responsibility I have incurred in attempting to present to you so large a subject within the limits of a single paper. I have had to discuss highly important questions in a few words, and through lack of time have omitted much I should have liked to say. I have only attempted to give a bird's eye view of the subject, and trust I have succeeded in showing that veterinary science

—“the Cinderella of the sciences,” as it has been aptly described — has done something during the present war to justify its existence.

In conclusion, I would draw attention to the fact that the comforts of war would not have been available for Army animals, had it not been for the generosity of the British public. I am sure that all of the 1,317,000 patients which passed through the various hospitals during the war, would tender their grateful thanks if they could. I am feebly endeavouring to do so for them.

[The lecture was given on Dec. 11th, His Grace the Duke of Portland K.G., G.C.V.O., in the chair. At its close, Maj. Genl. L. J. Blenkinsop, D.S.O. gave a brief *résumé* of the difficulties the Corps had encountered in the various fields; and on behalf of the A.V.C. thanked the R.S.P.C.A. for all they had done during the war. They had been the means of saving a vast amount of animals suffering. A vote of thanks to Sir F. Smith was proposed by the chairman; and a similar vote to the chairman followed.

We regret that restriction of space compelled us to print in four sections instead of two, as we had hoped. Also that it has not appeared earlier. Galley proofs were available on the evening of the lecture — with the usual proviso, that they were not to be used before publication in their Journal. By the time that appeared our limited space was filled with more urgent professional matter.]

#### ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

Address by Mr. G. P. MALE, F.R.C.V.S.

According to the rules of this Association the President is required to give what is called “A Presidential address,” but owing to great pressure of work I fear that the remarks I am about to make will fall short of the high standard set by former Presidents: at the same time I should like to take this opportunity of bringing to your notice and serious consideration matters which I have had in my mind for some considerable time which perhaps may be of some benefit to our profession, in whose welfare I take such a keen interest.

First, however, I should like to express my appreciation of the honour conferred upon me by your electing me to the chair of this association, in this year above all others. I feel that there were others who would have filled it better, but I yield to none in my wishfulness to advance its interests. We have had four long years of war, and we all feel tired. It has been strenuous work to carry on with depleted staffs, difficulties in transport, and hindrances from every quarter, and we should all like a rest and a holiday. There are yet fresh difficulties to face with the coming of peace: labour troubles are in the air, a reconstruction has to take place—the world is to be remade, and unless the veterinary profession is fully alive to its own interests, it will find itself left out in the cold, and instead of improved conditions there will be the reverse.

Now is the time for far seeing members of our profession to seize the opportunities offered. We have been content to jog along, each one busy with his daily routine of work, without thought to the benefit of the profession as a whole. Very little interest is taken with the doings of the Council, very few vote, and not many even read the reports of council meetings, so that we must not blame the Council if it is not all that can be desired—we must blame ourselves for our lethargy.

As an outsider open to correction, it does seem sometimes that a great deal of time is taken up by arguments

as to points of order and precedence and one sometimes wishes that some of the energy wasted on destructive criticism could be turned into something more helpful, more inspiring, and shall I say more ideal.

We as a profession seem to be shut off from all intercourse with the outside world. We harbour our old petty jealousies and forget that to improve our profession: we must go out into the world, especially the agricultural world, and show there that we are of use to agriculture, to science, and to mankind. Our finances are in a deplorable condition, and they get worse. Why? when this country is one of the finest agricultural countries in the world, and our stock is sought for by all the nations.

The fault is fully our own. How many agriculturists have even realised that their interests are very closely bound up with our own, and that if we as a profession advance in knowledge and position it is they that will benefit accordingly. I was talking to a noted stock breeder not long ago and he found it most difficult to believe that our finances were in such a deplorable condition, and he expressed the view that if it could only be brought to the knowledge of Breed Societies, Agricultural Organisations, and farmers generally that we could have not only their sympathy but their active support in reorganising them. Now is the time to do this. The government are desirous of assisting agriculture. Financially farmers are better off than ever before, and in helping us they will be helping themselves more than they know. Are we doing, as a profession, all we can to help stock owners by research work in animal diseases and in other improved methods of treatment?

With the exception of a few institutions, such as the Research Department at the Royal Veterinary College presided over by Sir J. M'Fadyean, who I might say here has done more than any other man in this country to investigate animal diseases; and the Veterinary Department of the Board of Agriculture with Sir S. Stockman at its head, there are few places equipped to properly carry out research; and even at these institutions there must be numerous difficulties both with regard to funds and facilities. Are all the schools alive to the necessity of improved educational facilities and veterinary research, and are they doing their best to forward it? I fear not. I am afraid their enthusiasm has waned under the difficulties presented. But why the difficulties? They chiefly resolve themselves into a want of funds, because the stock-owners have never been taught to realise the advantages of research, and so there has been no agitation for funds to be expended in this way, except by one or two enlightened Societies like the Royal Agricultural Society of England.

Also owing to the jealousy of the medical profession who, whenever there have been funds available for research, have used their great influence, I regret to say, for their own ends—to the detriment of the veterinary profession.

A good example of this occurred just before the war, when £200,000, called the Development Grant, had been allocated for research in connection with agriculture. An agitation was set on foot by a small number of pig breeders to alter the procedure in relation to swine fever. The medical pathologists took the opportunity to foster it, and at a meeting in Reading attended by nearly all the leading pathologists in England the veterinary profession was insulted by their proposing that an investigation should be carried out by their own profession, as we had failed. They afterwards, as a result, practically got the control of research work into their own hands, and, had not the war intervened, there is little doubt that our institutions would have received little or none of the money available. As I pointed out at the meeting, there were dozens of diseases which were

devastating the manhood of our country needing solution, *e.g.*, cancer, venereal diseases, cerebro-spinal meningitis, contagious diseases of children, such as measles, whooping cough, etc., and yet these pathologists wished to investigate swine fever, which, at that very time was being worked at with so much success by Sir S. Stockman at the Board of Agriculture laboratories. I regret very much to have to make these remarks, as I have so many good friends in the medical profession, but believe me they are, unfortunately, true, and unless more active steps are taken by our Council, and by the profession generally, we shall be left out again in any distribution of funds for research in animal diseases, and without funds it is impossible to carry out the lengthy and expensive investigation required.

The staffs must be paid adequately. Some of our leading veterinarians have told me that they cannot do this research because they haven't the staff. My answer is that, provide me with the money and I will obtain the staff very quickly. Why is it that a laboratory worker should be paid worse than a navvy? This must be altered; otherwise you will never get men to undertake it.

Our professors and lecturers, with few exceptions, are overworked and underpaid, so have little time and no funds to devote to experimental work; also no assistants to help them in the routine of the laboratory. Our colleges are lacking in the requisite laboratories and experimental field stations, whereas in other countries the State helps them in funds and encourages them in every possible way.

There are signs now that State aid is to be given for scientific purposes, but I have not yet heard of any move being made by those who should look after our interests to influence the State or public opinion as to our needs.

A Ministry of Public Health will shortly be formed in this country, but as far as I know no veterinary surgeon or veterinary pathologist has been asked to assist or advise, yet the relation between human and animal diseases is most intimate, and the collaboration of medical and veterinary pathologists could not fail to be of the greatest benefit to the country and the public health.

Human pathology owes much to the veterinarian. Griffith Evans, a veterinary surgeon, made in 1880 the momentous discovery of the trypanosome as a cause of disease in animals and man, and was the means of saving tens of thousands of human lives. He is but one example: numerous others could be quoted.

Again, there is a great demand by the public for a clean milk supply, and very shortly a new Milk Bill will be brought before Parliament which may seriously affect the veterinary profession. The last Milk Bill was never passed, owing partly to the outbreak of war, but the position of the veterinarian in that Bill was not a very enviable one. Are our interests being looked after and safeguarded in the draft of the new Bill? or are the medical profession to get the control of our services and our experience. We, as a profession, would probably not have been utilised at all, except for the inevitable protests of owners of live stock to the interference of men who have no practical knowledge of animal diseases. While the Council discuss matters of precedence and rules of debate, vastly more important matters are being settled without our being adequately represented as a profession.

If the Council have done all they can in these matters, and it is necessary for the rank and file of the profession to help, let them indicate in what way we can be of assistance, and if it is necessary let us return a member of our own to Parliament to look after our interests. This would require funds, but when the new Bill is passed it is to be hoped the necessary funds will be obtained, so that the Royal College will be able to pay its way and devote the surplus to some such object.

Speaking of the new bill, are all the steps necessary to get this bill through the House of Commons being taken? I am quite sure that there would be no difficulty in passing any well thought out scheme for the benefit of the profession if individual members approached their Members of Parliament; but we are in the dark as to what is required of us.

The veterinary profession have deserved well of this country.

Those who have had the privilege of entering the Royal Army Veterinary Corps have done splendid work, and I should like to quote the words of General Birkbeck, the Director of Remounts.

He says "our army had produced an unexampled veterinary service and their preventive hygiene had been beyond all criticism."

Sir J. Cowans Quartermaster General in his announcement that the King had been graciously pleased to raise the A.V.C. to the status of a Royal Corps said "The corps by its initiative and scientific methods has placed military veterinary organisation on a higher plane. The high standard which it has maintained at home and throughout all the theatres has resulted in a reduction of animal wastage, an increased mobility of mounted units and a mitigation of animal suffering unapproached in any previous military operations."

Those who have stayed at home, owing to ill-health, age, or some other good reason, have carried on with great fortitude without honour or glory, and have done their best under great difficulties to preserve the live stock of the country, to prevent contagious diseases which at one time looked like devastating the country, and to assist the decrepit and underfed horses remaining on this side of the water to do their work.

Others have done yeoman service as civilian veterinary officers in various army units and hospitals; especially was this the case at the beginning of the war, when the personnel of the A.V.C. was so small, and when officers with no experience of horses were in charge of animals newly arrived from Remounts, probably suffering from mange, ringworm, strangles, influenza, or pneumonia, with no farriers, dressers, or organised staff, and probably no shelter from wind and weather. The civilian veterinary surgeon then saved the situation.

In other spheres the veterinarian is looked upon as the friend and adviser of the farmer and stock owner. His opinion is constantly sought as to the soundness of horses, and when a contagious disease affects the animal population he is called in to eradicate it, or to lessen its depredations.

Individually he is looked up to as a scientific man, practical withal, but collectively veterinarians are neither properly recognised by scientific bodies nor by the State, and even agricultural organisations have not realised how much they owe them.

The Board of Agriculture is pre-eminently the body that should look after our welfare. Is it doing it? I fear not. It is only recently that a laboratory worthy of the name was established for the investigation of animal diseases.

The Local Government Board looks after the interests of the medical profession, who are well represented there, in fact a medical man Dr. Addison is now at the head of the department. The Board of Agriculture must look after the Veterinary profession in the same way, not for our sakes but in the interests of Agriculture which it should represent.

Agriculturists owe a great deal to the veterinary Staff of the Board, though I fear the department in its modesty has not advertised the fact. Only recently a vaccine has been prepared for the prevention of abortion in cattle which is proving most successful.

A serum is now in use for the protection of pigs against swine fever. Other diseases e.g. joint ill in foals,

are being investigated; pamphlets are written on the management and diseases of live stock, and in all sorts of ways the veterinary staff are assisting agriculture.

I should like to see a greater sympathy between the veterinary department and the owner of live stock, and also between the Board of Agriculture and the veterinary profession.

If individual agriculturists consult the veterinary surgeon on all matters concerning the health and management of their stock, surely the Board of Agriculture should look after their interests, provide funds for research, and not allow our colleges to be bankrupt, depending for money on the fees of their students.

I trust that in the coming year sufficient funds and facilities for research may be provided, so that many diseases of live stock may be investigated, and especially those which are communicable to man, and perhaps those diseases which are common to both, such as cancer tuberculosis, influenza and pneumonia, may be dealt with. Up to the present the medical profession have made comparatively little headway. Cancer research is almost stationary although huge sums have been spent, the deaths from influenza and pneumonia have been estimated to total 6,000,000 persons in 12 weeks, being five times more deadly than war. With regard to tuberculosis 150,000 persons are disabled every year—and yet the leading medical pathologists beg to be allowed to investigate swine fever! Influenza and pneumonia epidemics were common among horses at the beginning of the war, but I am glad to say owing to the preventive measures taken, and with proper treatment, the losses were reduced to a minimum.

The experience and assistance of veterinary surgeons in investigations into these and other diseases should be of the greatest benefit to the medical pathologist, and to the State, but it is noteworthy that the veterinarian is not called in to assist.

We are a small profession and an isolated one, but the time must come when we shall have proper recognition. We must educate public opinion—that is the only possible way to get things done; and if I have done nothing more this afternoon than indicate some of the ways in which this can be accomplished I shall be satisfied.

I trust the Council will do their utmost to advance our interests. I care not whether the Council is composed of all the teachers from all the Colleges, or wholly of practitioners. It matters not what clique or party pulls the strings so long as they look ahead to safeguard the interests of this noble profession, which I have so much at heart. If I have said anything to wound their susceptibilities I make that my excuse, and plead forgiveness, but I am firmly convinced that energetic measures are required at once to convince public opinion that State aid must be given to our colleges, and that veterinary research must be encouraged, and supported by requisite funds.

Veterinary Surgeons must take more interest in public bodies, and especially scientific institutions.

Agriculturists must realise the close intimacy between our interests and their own.

Members of Parliament should be approached, their aid sought, and if necessary one of our own members should be returned to the House of Commons.

If these things are done now, I am sure that the men coming back to their practices after the horrors of war will find that we have not been idle while they have been away and that the status of the profession has been raised, and instead of being a bankrupt profession we shall have sufficient funds to pay our lecturers and our scientists adequately, to equip our colleges, to provide research stations worthy of our calling, and that we shall be enabled to devote our energies to the elucidation and treatment of disease for the benefit of agriculture and the good of the whole State.



### "ACTINOMYCOSIS IN A MARE TREATED WITH AUTO-VACCINO-THERAPY."

Sir,—Replying to Major Ascott's letter in your issue of the 15th, inst I have much pleasure in stating the mare had her first injection on April 20th 1918, and the dates of the subsequent injections are as follows—April 27th, May 5th, 14th, 21st, 29th June 7th, 15th, 23rd, 30th, July 8th, and 17th. It will be seen the period covered by the vaccine treatment was 89 days, and as already stated in my article the number of injections given were twelve in all. I had hoped others would discuss the points raised, for I am sure there must be several debatable ones—perhaps there are many. Healthy constructive criticism does everyone good, and that is one important reason why one should record his observations in the professional journals but I do not mean the criticism of those curmudgeous met with, unfortunately, in every walk of life, whose main object appears to be to black ball every opinion or observation honestly put forward, save those found in the idols of their own production.—Yours etc.

Friarn House  
Bridgwater.

W. SCOTT.

### THE IMPORTED DISEASES.

Sir,—In a leading article in your issue of February 22nd.

I was one of those who a week or so ago received two of the circulars from the Board of Agriculture to which you refer and I think that all practitioners agree that the step taken by the Board is a wise one and should have their entire support if only it could be carried out without too much red tape.

I know a veterinary surgeon who some while ago had an unusual case in a dog. The animal died and the veterinary surgeon made a post-mortem examination expecting to find something to account for its death and previous behaviour. All organs were found to be healthy and the cause of death not ascertained; at the same time something was found which, with the dog's history, raised a certain suspicion, with the result that the animal's head was sent to the Board and a letter sent giving full particulars of the case and asking that the brain might be examined. The veterinary surgeon informed his client that the post-mortem was unsatisfactory, and suggested the further examination which was agreed to. The following day a wire was received from the Board telling the veterinary surgeon to report the case to the police. Result—a constable visits the owner, orders a pet house dog which had never been in contact to be shut up in a small outhouse until the Board was heard from (movement of this dog to a proper kennel for quarantine being refused, to the owner's indignation) which was not for three weeks, the animal being meanwhile under the inspection of the police and of the local veterinary inspector. The veterinary surgeon concerned received no further communication whatever from the Board beyond the telegram mentioned.

This is rather long winded, but my point is this—Is not such action conducive to what you aptly term in your article "clinical error" and opposed to the object of the circulars. For what practitioner could stand many such rackets in his practice? Surely the veterinary surgeon—if all this was necessary—might at least have held the live dog in quarantine during the Board's pleasure, and so saved his client all the inconvenience and annoyance—Yours truly,

24/2/19.

"ONCE BITTEN."

### THE PHARISEES.

Sir,—May a middle-aged practitioner in a big city miles away from Cumberland, who has never seen that county or known a single veterinary surgeon in it, offer some comment upon the lengthy report under the heading "Cumberland practitioners and their fees" in the *Current Record*? So far as I can judge from the report, the proceedings seem open to criticism; and certainly, the method of reporting them leaves much to be desired.

I only discuss the actual business transacted. First an "ethical code" was adopted, concerning which I indicate one point. A good proportion of it consists of rules which most of us agree should always be observed between all members; and I may add that infringement of one of those rules (that against soliciting) has been followed by removal from the register. Yet we are told that these rules are "only to operate as between subscribers to this scheme," who are allowed "freedom of action and practice" in dealing with competitors outside. This alone is somewhat ominous; and there is more to follow.

The next decision reported concerns the "F.P.D. Panel System," I, and I fancy many other practitioners, know nothing about this; and some explanation and discussion of its provisions might have been useful to many. Nothing of the sort is given. All we are told is that the Cumberland union will have nothing to do with a scheme which seems to have been generally acceptable to other veterinary surgeons, on the ground that its terms and conditions are "little less than an insult to the profession." No indication of what the objectionable features are is given; but it is added that nobody holding one of these appointments shall be admitted into the Cumberland combine—another significant pointer.

Next comes the most important business—the fees and charges. Why are we told so little about these? A mileage scale, apparently an absolute minimum, has been fixed. A scale of fees has been fixed and charges "recommended"; but all these scales are only to be supplied to members. They would certainly have been useful to practitioners outside; and some other questions suggest themselves. Are these scales obligatory upon the members, or merely "recommended" to them? Will an outsider desiring to join the combine be expected to accept the scales blindfold? If the fees demanded for official work (Board of Agriculture, etc.) exceed those usually given, how is it proposed to obtain them? If so much essential information was to be withheld, what was the use of publishing the proceedings at all.

As a final fillip to our curiosity, we read that "The relation which federated members should take up towards non-federated men was discussed, but no resolution was at present come to." Does not this suggest that these non-federated men are in danger of professional ostracism? I may be wrong; but that is the impression which the whole report has left on my mind, and it is not a pleasant one. So far, the federation only numbers about two-thirds of the men now practising in Cumberland; and, if these decide to treat the remaining third as pariahs unless they join the combine, what kind of professional brotherhood is likely to prevail in the county?

Perhaps some other onlookers will give their opinions, or someone with knowledge may enlighten me. Let me add that I firmly believe in the value of combination; but there are right ways and wrong ways of setting about it, and at present it looks to me very much as if these Cumberland practitioners had chosen the latter.

Yours truly, "TOWNSMAN."

## ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Feb. 21.

The Secretary of State for War has received the following dispatch:—

General Headquarters,  
Mesopotamian Expeditionary Force,  
November 11, 1918.

Sir,—With reference to paragraph 29 of my dispatch dated October 1, 1918, I have the honour to submit herewith a list of names of those officers serving or who have served under my command, whose distinguished and gallant services and devotion to duty I consider deserving of special mention.—I have the honour to be, Sir,

Your obedient servant,

W. R. MARSHALL, Lt.-Genl.,  
Commander-in-Chief,  
Mesopotamian Expeditionary Force.

\* \* \* \*

T. Capt. J. J. M. Barry, T. Capt. W. T. Ferguson,  
T. Capt. J. R. Hewer, T. Capt. J. Robertson, Capt.  
(T. Major) T. L. Shea, Capt. (A. Major) G. Williamson.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Feb. 21.

Major J. R. Steevenson, D.S.O., to be actg. Lt.-Col. whilst holding the appt. of A.D.V.S. (Dec. 21, 1918).  
Capt. F. W. Pawlett, T.F., relinquishes the temp. rank of Maj. on ceasing to hold the appt. of D.A.D.V.S. (Jan. 31).

Capt. J. G. MacGregor, T.F., relinquishes the actg. rank of Maj. on ceasing to hold the appt. of D.A.D.V.S. (Dec. 17, 1918).

Temp. Capts. to be actg. Majs. whilst holding the appt. D.A.D.V.S.:—W. P. B. Beal (Dec. 5, 1918); J. N. Glass (Dec. 18, 1918).

Temp. Lts. to be Temp. Capts.:—H. Cooper (Jan. 8); A. D. Sanderson (Jan. 11).

Feb. 22.

Temp. Capt. D. G. Davies relinquishes his commn. on account of ill-health (Feb. 23), and retains the rank of Capt.

Temp. Qrmr. and Capt. A. T. Youles relinquishes his commn. on account of ill-health contracted on active service, and retains his rank (Feb. 20).

Feb. 24.

Capt. and Bt. Maj. G. Williamson relinquishes actg. rank of Maj. on ceasing to comd. a Vety. Hospital (Nov. 20, 1918).

To be actg. Majs.:—Temp. Capt. E. B. Reynolds (Dec. 6, 1918). While holding the appt. of D.A.D.V.S.:—Capt. C. R. Chadwick, T.F. (Dec. 2, 1918); Capt. U. W. F. Walker, M.C. (Dec. 7, 1918); Capt. H. E. A. L. Irwin (Dec. 20, 1918).

Feb. 25.

The War Office announces the following casualty:—  
Died: Major W. H. Taylor.

## OBITUARY.

W. H. TAYLOR, Major, R.A.V.C.

Graduated Lond: July, 1905.

ALBERT WILLIE OXENHAM, Mountain Ash, Glam.

Edin.: Dec. 1894.

Mr. Oxenham's death occurred on Feb. 10, at the age of 46.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.		
		Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		(b)	Out-breaks	Slaughtered.
		Dogs	Other Animals												
Gr. BRITAIN.															
Week ended Feb. 22				4	4	8				162	333	13	31	11	
Corresponding week in	1918			4	4			1	1	183	313	11	7	2	
	1917			15	22			1	2	71	144	21	44	12	
	1916			10	23			3	4	79	169	10	66	240	
Total for 8 weeks, 1919		16	3	33	47	16	89			1390	2914	151	155	50	
Corresponding period in	1918			54	63			3	4	1279	2463	161	113	35	
	1917			117	131			5	9	680	1445	252	309	103	
	1916			102	118	1	24	13	40	724	1854	127	607	193	

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, Feb., 25, 1919

† Counties affected, animals attacked:—

Excluding outbreaks in army horses.

IRELAND.		Outbreaks		Outbreaks		Outbreaks		Outbreaks		Outbreaks	
Week ended Feb. 22		...	...	...	...	...	...	...	...	...	...
Corresponding Week in		1918	...	...	...	...	...	...	...	...	...
		1917	...	...	...	...	...	...	...	...	...
		1916	...	...	...	...	...	...	...	...	...
Total for 8 weeks, 1919		...	...	...	...	...	...	...	...	...	...
Corresponding period in		1918	...	...	...	...	...	...	...	...	...
		1917	...	...	...	...	...	...	...	...	...
		1916	...	...	...	...	...	...	...	...	...

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, Feb. 24, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1600.

MARCH 8, 1919.

VOL. XXXI.

## THE ANIMALS (NOTIFICATION OF DISEASE) ORDER OF 1919.

This Order, which came into force on the last day of February, differs little at first sight, but nevertheless materially, from the Order of 1910 which it supersedes. The important alterations are that dogs and cats are now included among the animals in which veterinary surgeons are required to notify scheduled disease, and that rabies becomes one of the diseases the existence or suspected existence of which is to be reported to the M.O.H. by the local inspector. There are one or two minor changes. In the section requiring the local inspector to transmit reports to the Local Authority and M.O.H., the words "Sanitary district in which the animal or carcass is" are followed by "or was at the time of its death." This casts an additional obligation on local inspectors in some cases. Sarcoptic and psoroptic mange are now formally included in the Order, although excepted from the diseases which the practitioner is required to notify to the police.

Practically the Order is an amendment of the imperfections of the old one, especially with regard to rabies. The 1910 Order took no cognisance of rabies in dogs and cats; the present one removes that flaw, and leaves no loophole for any practitioner who may be inclined to evade his duty.

### "OUR OWN MEMBER."

More than once in the last generation the idea of having a Veterinary M.P. to represent our interests in the House has been discussed; and recently it has again been mentioned. The last time it was before us was some thirteen years ago, when, after causing much discussion, it was quietly dropped. Several reasons accounted for this. The difficulties in the way of carrying out the plan became clear upon close examination; while no concrete proposals for surmounting them were put forward. It was recognised, too, that considerable influence could be exerted upon the government in other ways; and there was a certain doubt whether a single Veterinary M.P. would be more effective.

Except that the payment of M.P. has lessened the possible financial difficulties, the position to-day is much the same as in 1906. How to get a veterinary surgeon into Parliament at all remains a problem; though circumstances might arise to simplify it. It is still doubtful whether a veterinarian in Parliament could exercise more influence upon the Government than can be done by the Parliament of our own profession; and it is certain we have other good methods of pressing our claims in

the House. Much can be done by individual veterinarians getting in touch with and informing their local M.P.; and probably this line has never yet been sufficiently worked by the profession generally. Any member of the House with a genuine interest in our affairs might do nearly as much good as one of our own profession; though professional knowledge should render a veterinarian preferable, if he were suitable in other respects.

A further consideration is that a veterinary M.P.—one voice in more than 700, speaking for one of the smallest professions in the kingdom—would have an uphill task; and the chances of success would depend very largely upon the quality of the man. Our present President, for instance, who unites intimate knowledge of our needs, and long experience in close touch with Government Departments, with a level head, and a gift of lucid expression, might attain our ends, and would certainly do us good in some directions. One asking impossibilities, one lacking in tact, or one unduly given to verbosity, are only a few specimens of several possible representatives who could only do us harm. Since 1906 we have made good progress without a member, and might continue to do so. It would be better to remain unrepresented than have a representative of the wrong sort.

## A PECULIAR CASE OF SHOULDER LAMENESS.

By Captain G. E. OXSPRING, R.A.V.C., Khartoum.

The subject of this report was a Cyprian mule gelding, 15 hands, aged 12 years, belonging to an Artillery Unit. He had three years service, during which time no lameness was recorded against him.

The animal was admitted to Hospital for lameness in the near fore limb. The shoulder muscles were at this time slightly atrophied, when walked or trotted the shoulder joint was not properly extended, and the limb was carried in the way which is typical of shoulder lameness. Manual examination revealed nothing as to the actual cause.

Treatment at first, was hot fomentation and massage to the muscles, and rest. After two weeks, there was no improvement, so it was decided to blister an area including the shoulder joint and part of the scapula muscles. Two months rest was allowed, and as the case was worse than ever, and the muscles were greatly atrophied, it was considered to be incurable, and therefore destroyed.

At the Post Mortem examination, a bony growth was found on the cartilage of prolongation, near the cervical angle of the scapula. The enlargement

was nearly circular in outline with a diameter of 3 inches, and it extended through the depth of the cartilage, the remainder of the latter was quite normal.

From the dorsal surface of the growth, a large part of the supraspinatus muscle took origin, the fibres of which appeared to pass into its substance.

As there was no sign of external injury in this region, nor any knowledge of one having occurred, it seems probable that the condition started as the result of a sprain or rupture of the supraspinatus muscle at its origin.

### EPITHELIOMA OF THE PENIS IN A PONY.

By Captain J. F. D. TUTT, M.R.C.V.S., F.R.M.S.,  
Winchester.

The subject was an aged pony, used for occasional short journeys into town.

*History:* The owner came to me on September 3rd, 1915, and requested me to see the animal, as it had great difficulty in urinating, and the sheath was very much swollen. It was also rapidly losing condition. As it was an old favourite he desired to have it remedied if possible.

On arrival at the stable, I examined the sheath, and endeavoured to withdraw the penis, but was unable to do so on account of the swelling. I was able to feel that the tip of the penis was rough, and that a growth was present, and I accordingly advised surgical measures.

An operation was carried out on Sept. 7th. The animal was cast and anaesthetised, and when well under the influence of the anaesthetic, the penis was withdrawn, but only with the greatest difficulty, and when secured with a piece of tape, was found to be covered with cauliflower-like excrescences on the end, and for a length of five inches was greatly enlarged and hardened.

The urethral opening was practically obliterated, and it was impossible to insert a catheter, even when the canal was slit open for a length of 3—4 inches. The healthy portion of the penis was secured by a piece of tape, the ends of which were held by an assistant.

The diseased portion was then carefully removed, and the slit portions of the urethra were sutured to the end of the stump in such a manner as to diminish the risk of stricture.

The patient made a good recovery and was able to urinate quite freely until its recent destruction on account of age, etc.

Prior to the operation just described, a previous operator had removed some papillomata (according to the owner) some two years before.

*Microscopical Examination of Growth.* A paraffin section was obtained in the usual way, cut and suitably stained.

The penis was found to be infiltrated by an extensive malignant growth, having the structure of a squamous epithelioma. It was composed of ingrowing epithelial columns with cell nests and keratinoid changes—exactly like the same growth in man.

(10013.)

### ORDER OF THE BOARD OF AGRICULTURE AND FISHERIES. (DATED 24TH FEBRUARY 1919.)

#### ANIMALS (NOTIFICATION OF DISEASE) ORDER OF 1919.

The Board of Agriculture and Fisheries, by virtue and in exercise of the powers vested in them under the Diseases of Animals Acts, 1894 to 1914, and of every other power enabling them in this behalf, do order, and it is hereby ordered, as follows:—

##### *Application of Order.*

1. The diseases to which this Order applies are cattle plague, contagious pleuro-pneumonia of cattle, foot-and-mouth disease, sheep-pox, sheep-scab, swine-fever, anthrax, epizootic lymphangitis, rabies, glanders and farcy, and sarcoptic and psoroptic mange of horses, asses, or mules, and the definitions of "disease" and "diseased" in the Diseases of Animals Act, 1894, are extended for the purpose of this Order accordingly.

##### *Notification of Disease.*

2.—(1.) A veterinary surgeon or veterinary practitioner who in his private practice is employed to examine any head of cattle, or any sheep, goat, swine, horse, ass, mule, dog, or cat, or the carcase of any such animal, and is of opinion that the animal is diseased, or was diseased when it died or was slaughtered, or suspects the existence of disease therein, shall with all practicable speed give notice of the existence or suspected existence of disease to an Inspector of the Local Authority, and also, except where the disease is anthrax, sheep-scab, glanders or farcy or sarcoptic or psoroptic mange of horses, asses, or mules, to a constable of the police force for the police area in which the animal or carcase is, or was at the time of its death, who shall transmit the information to the Board of Agriculture and Fisheries by telegram addressed "Agrifi London."

(2.) An Inspector of the Local Authority on receipt of notice under this Order shall forthwith report the existence or suspected existence of disease to the Local Authority, and if the disease is anthrax, glanders or farcy, or rabies, also to the Medical Officer of Health of the Sanitary District in which the animal or carcase is, or was at the time of its death.

(3.) The notification of disease hereby prescribed shall be in addition to any notification prescribed by any other Order relating to the disease.

##### *Communication of Information of Disease by one Local Authority to another.*

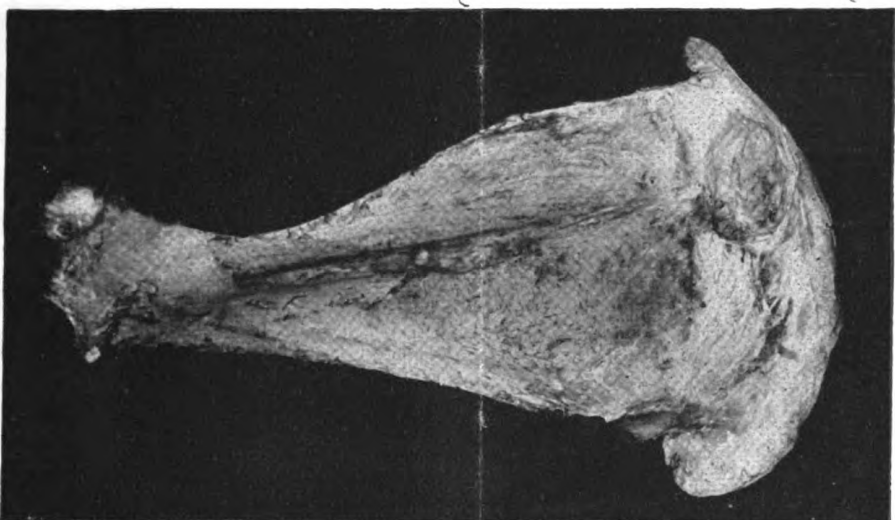
3. Where a Local Authority receives under this Order or otherwise information of the existence or suspected existence of disease in relation to a carcase of any of the above-mentioned animals that has died or been slaughtered in the District of another Local Authority, the Local Authority shall forthwith transmit the information to the other Local Authority.

##### *Fee for Notification.*

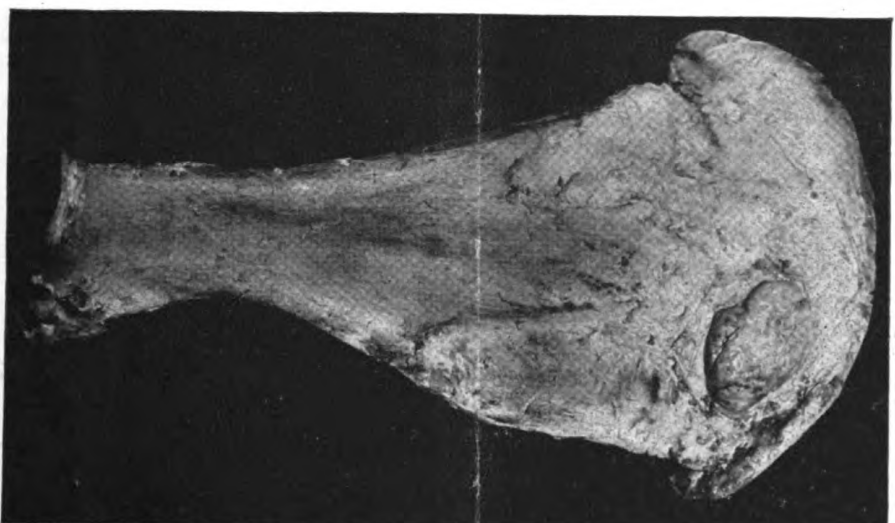
4.—(1.) A veterinary surgeon or veterinary practitioner who under and in accordance with this Order gives notice of the existence or suspected existence of disease to an Inspector of the Local Authority shall be entitled to receive from the Local Authority a fee of two shillings and sixpence for each notification.

(2.) Where two or more animals or carcasses are examined by a veterinary surgeon or veterinary practitioner on the same premises and at the same time and are found to be diseased, or are suspected of being diseased, one fee only shall be payable to him in respect of the notification.

REV. OF  
C. 100000



SCAPULA—DORSAL SURFACE



SCAPULA—VENTRAL SURFACE

**PECULIAR SHOULDER LAMENESS.**

*To illustrate note by Capt. G. E. Oxspring, R.A.V.C.*

TO VINU  
ABBOGLIO



cation of the existence or suspected existence of disease in such animals or carcasses.

#### Revocation.

5. The Animals (Notification of Disease) Order of 1910 is hereby revoked.

#### Commencement.

6. This order shall come into operation on the twenty-eighth day of February, nineteen hundred and nineteen.

#### Short Title.

7. This Order may be cited as the ANIMALS (NOTIFICATION OF DISEASE) ORDER OF 1919.

In witness whereof the Board of Agriculture and Fisheries have hereunto set their Official Seal

L.S. this twenty fourth day of February, nineteen hundred and nineteen,

A. W. ANSTRUTHER,  
Assistant Secretary.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

(In each case the amount subscribed is £1 1s., except where otherwise indicated).

W. F. Aston, Capt. R.A.V.C.	H. McIntyre, Leek
R. E. Bond, Lt. R.A.V.C.	T. Parker,
C. W. Cartwright,	Newcastle-on-Tyne
Capt. R.A.V.C.	R. T. Smith, Capt. R.A.V.C.
Chas. Crowhurst, Bodmin	A. Spicer, New Oxted
M. Cunningham,	J. M. Tate, Pretoria,
Capt. R.A.V.C.	South Africa
F. Hopkin, Maj. R.A.V.C.	R. C. Tennant,
T. Hopkin, Strangeways,	Maj. R.A.V.C.
Manchester	W. Turtill, Wickham Mkt.
J. R. A. Jones, Gloucester	B. M. R. West,
J. E. Johnston, Belfast	Capt. R.A.V.C.
H. E. Keylock, Swindon	B. Whittam, Capt. R.A.V.C.
H. Leggett, Middlesboro,	F. W. Willett, Staines
(1918-1919) £2 2s.	P. F. Woodland, C'n R.A.V.C.
L. W. Wynn Lloyd,	(1918-1919) £2 2s.
Carnarvon	26 5 0
Previously acknowledged	601 10 0
	£627 15 0
	Mar. 4.
D. A. D. Aitchison,	F. W. Medlock, C'n R.A.V.C.
Madras, India	S. H. Mellon, Capt. R.A.V.C.
W. J. Cade, Capt. R.A.V.C.	£1
H. S. Cockburn,	E. Morgan, D.V.H.,
Capt. R.A.V.C.	Venezuela, S. America
W. Collinson, Sheffield	W. J. Mulvey, J.P.,
(1917-1919) £2 2s.	London, S.W. 3
W. A. Elder, Swaziland,	G. E. Oxspring,
S. Africa	Capt. R.A.V.C.
J. Facer, Capt. R.A.V.C.	R. B. Palmer, M.C.
(1918-1919) £2 2s.	Capt. R.A.V.C.
W. W. Grasby, Daventry	S. W. Pratt, Shanghai,
T. H. Greatbatch,	China
Stoke-on-Trent	H. S. Reynolds, Daventry
G. O. R. Grey, C'n R.A.V.C.	H. L. Roberts, Ipswich
(1918-19) £4	S. H. Slocock, Hounslow
J. F. Healy, Midleton,	F. B. O. Taylor,
Co. Cork	Stratford-on-Avon
W. Ledger, Lt. R.A.V.C.	A. Weighton, Hull
A. W. Mason, T.D.	
Lt.-Col. R.A.V.C.	30 4 0
Previously acknowledged	627 15 0
	£657 19 0

#### ROYAL COUNTIES

#### VETERINARY MEDICAL ASSOCIATION.

(NATIONAL V.M.A.—SOUTHERN BRANCH).

The Annual General Meeting and Dinner was held at the Great Western Hotel, Reading, on Friday, February 14th, when the President, Mr. G. P. Male, presided, and there were also present the following:—Vice-Presidents: Messrs. J. Willett, Hon. Treasurer, London; J. H. Parker, Faringdon; and R. J. Verney, Hon. Auditor, Oxford; also J. C. Coleman, Hon. Secretary, Swindon; J. B. Buxton, London; E. Brown, London; J. R. Baxter, Lechlade; T. W. Lepper, Aylesbury; H. A. MacCormack, London; W. Pauer, Blackwater; S. H. Slocock, Hounslow; and Mr. F. W. Willett, Staines. Major F. J. Taylor was present as a visitor.

The Hon. SECRETARY announced apologies from Sir J. M'Fadyen, Sir Stewart Stockman, Messrs. Trewin, G. E. King, T. B. Goodall, J. Varney, F. W. Cundell, J. East, J. McIntosh, J. McKelvie, S. Pennington, W. T. D. Broad, F. Bazley, W. C. Hazelton, Major P. J. Simpson, and Professor Wooldridge.

A letter was read from Mr. Adams asking that the R.C.V.M.A. would send a representative to meet the Insurance Companies, re examination fees for horses and cattle.

The SECRETARY explained that the Insurance Companies were having a meeting to discuss the fees paid to veterinary surgeons for examinations.

The PRESIDENT thought Mr. Adams had written to the Insurance Companies and they had said they were willing to meet him. He then wrote to Prof. Wooldridge, Secretary of the National, asking him if he would go on behalf of that society. The meeting was then postponed and Mr. Adams asked the Royal Counties to send a representative at very short notice. Mr. Willett was going to represent at that meeting which was postponed. They could now either elect a representative, or ask Mr. Willett if he would be good enough to represent them at the meeting to be held in London.

Mr. WILLETT said that a little while ago he said that he would not examine animals under a certain fee. He was told there was a meeting of Insurance Companies with a view to coming to some arrangement with regard to the fees paid. As he only acted as a referee at special fees, he would prefer that some other member should be their delegate, one who was more conversant with the procedure.

The PRESIDENT pointed out that some years ago the National went into the matter. A sub-Committee was formed and they met the representatives of the Insurance Companies. But neither party agreed, and the matter was left in abeyance. That was before the war.

The PRESIDENT then proposed that Mr. F. W. Willett be their representative. He was handy to London. The Secretary seconded and the proposal was agreed to.

Mr. PAUER asked if it would not be well to know Mr. Willett's views. Possibly he was in favour of half-a-crown fee.

Mr. WILLETT replied emphatically that he was not. It ought not to be done under half-a-guinea. There ought to be a sliding scale according to the number of animals.

The SECRETARY: That is so under scale A. I believe that at present there are two scales adopted generally all over the country, one where you get a fixed sum of 5/-, and the other where you get 3/- if more than one, and mileage for over three miles. Then there is scale A in which you are paid a much higher fee and no mileage. I always go under scale A which is a sliding scale according to the value of the animal.

Mr. PAUER: You are referring to only one particular Insurance Company?

Mr. COLEMAN : No. This is the scale of the whole amalgamated Insurance Companies. They have a sort of union who fix their fees.

Mr. PAUER : I have never yet seen these fees.

Mr. COLEMAN : They have them, but if you don't ask for scale A fees you won't get them. If you demand them they will pay you. The scale is agreed to by all the Insurance Companies.

A letter was read from Sir Stewart Stockman in which he said that if the Royal Counties liked to have a meeting in the Board of Agriculture laboratory, Addlestone, during the year he would be pleased to receive them; and he would give a demonstration on any particular matter of interest provided it was something in connection with which there was abundant material.

The PRESIDENT said he was sure they were grateful to Sir Stewart for inviting them. On several occasions they had most instructive meetings there. If it was their wish a letter would be written to Sir Stewart thanking him very much for the kind invitation and asking whether the April meeting would suit him.

Mr. J. WILLETT proposed that the next meeting be held at the B.O.A., laboratory, failing that at Reading.

The meeting unanimously approved of the suggestion.

#### REPORT OF SUB-COMMITTEE *re* VETERINARY FEES.

The PRESIDENT said they would remember that at their last meeting a sub-Committee was formed to draw up a scale of suggested minimum fees for that Association. There were on that sub-Committee Messrs. Coleman, Parker, F. W. Willett, Hancock, and himself. Some other members were not able to come, but Mr. Coleman, Mr. Willett, and himself went into the matter very fully, spending three or four hours over it. Mr. Coleman would read the recommendations they made.

#### *Minimum Fees Recommended.*

Town visits 3/6. Mileage 1/3 per mile. It is also recommended that an additional fee be charged for each additional animal examined.

Foaling or Calving 1 to 2 gns; Removing placenta 10/6 mare, 7/6 cow; Inflation of udder, Milk-fever 5/- *Medicines*. Draughts, cows and horses 2/6; Drenches, cows, cleansings etc. 2/-; Lotions 8oz 2/6; Liniment 8oz 2/6; Blister 2/6 to 5/- according to size; Powders, horses and cows, 8/- per doz; Balls 1/6 each; Pessaries 1/- to 2/- each.

*Dog Medicines*. Pills 1/6 per doz; Medicine 2oz 1/6 6oz 2/6; Powders 2/6 per doz; Worm capsules 1/- each; Whelping 10/6 to 21/-; Castration with Chloroform 21/-; Board and Treatment at Infirmary 2/- per diem.

#### *Operations. Horses etc.—*

Castration horses, Single 21/-, Two 15/-, Three or more 10/6 each; Docking 5/-.

Castration calves 2/6 each; bulls 1 year and over 10/6 each.

Ringling Bull 5/- (ring extra.)

Intratracheal injection 5 3/8 each, up to 10 2/6 each, above 10 2/- each.

Anti-abortion, 1 to 5, 5/- each; up to 10 2/6; above 10 2/- each.

Tuberculin test Single 21/-; Next two 10/6 each; After first three, 5/- each.

Anti-Tetanin Injection 7/6 each.

Raising and slinging horse 10/6; Hire of slings 2/6 per week.

It is to be especially noted that the above are minimum fees.

The PRESIDENT thought the fees were fair charges, and in reply to a question said that the 25% would be in addition. The War Office and the County Council paid 7½d. per mile each way.

Mr. J. WILLETT : Have you any information from the National with reference to these fees?

The PRESIDENT : No.

Mr. WILLETT said he was present at the last National meeting when he called attention to the fact that they were discussing the question of fees at the Royal Counties, that they considered the matter urgent, and that the National should again take the matter up, and get from the different societies their recommendation.

Mr. F. W. WILLETT asked if any scale of fees could be considered in regard to examining cows for councils, and so on, any figure for the examination of udder and signs of tuberculosis. Under special circumstances they got a stated sum for that, but it did not come under the Tuberculosis Order. He was an inspector for three councils, and before the war, if they found a tuberculous udder it had to be reported to the inspector of the local authority.

The PRESIDENT : I think the Tuberculosis Order will very soon come into force again.

Mr. F. W. WILLETT continuing, said that the Inspector of the Board of Agriculture, or the County Council Inspector then took the matter out of their hands. He would like to know what should be the charge, and considered it ought to be a shilling per cow.

Mr. COLEMAN (hon. sec.) said the County Council allowed a shilling per cow. When he had a case reported to him he used his discretion as to examining the other cows. They allowed a shilling for each cow examined beyond the one or two reported.

Mr. F. W. WILLETT : We are supposed to examine them once or more quarterly.

Mr. PAUER : I have been having about 1/6 a cow for quarterly inspection.

The PRESIDENT drew attention to the fact that a lot of these inspections were by unqualified men, inspectors of nuisances, etc. He considered that a matter which should be gone into.

A MEMBER : Doctors examine in some cases. A farmer told me that a doctor came down to inspect his cattle in the summer time. He was just going to market, so he said : "you go out and look at the cows, I shall be down directly." The doctor went out into the field and came back very pleased. He said "you have a ripping lot of cows. They look in a very healthy condition, I never saw them look better." He had inspected the store stock and didn't see the milk cows at all! (Laughter)

Major TAYLOR : Do you propose to make extra charge for night visits?

The PRESIDENT : We discussed that last time and sent a notice to each member saying that double fees would be charged for night work. It has already been agreed upon.

Mr. J. WILLETT : That should be embodied in any report we make. There is the question of time, summer or winter, and after 6 o'clock was the agreed time for winter and after 8 o'clock in summer.

The PRESIDENT : Then we agreed to change 25% increase, calling it a war increase. Then Mr. Willett the late President, thought we should go into each individual fee and draw up a minimum scale, so that practitioners should have some idea what to charge—some basis on which to work.

Mr. LEPPER : You can't force those who are not members of the Association to charge these fees. The man who is not a member can charge what he likes.

The PRESIDENT : I think most practitioners are members.

Mr. J. WILLETT : The thing is to point out the fact to non-members that we are dealing with fees, and that it is to their benefit to join the Association.

Mr. COLEMAN proposed that a circular should be sent to M.R.C.V.S., advising them of the decision already arrived at, and pointing out the benefit to be derived from associating with members of the Association.

Mr. J. WILLETT supported Mr. Coleman's proposition

and considered that the circular should be sent to all members of the profession in their area.

Major TAYLOR: A thing like this ought to be controlled by the R.C.V.S. for the whole of the practitioners in the kingdom. It is a thing the Royal College ought to take in hand for it affects the whole profession.

Mr. J. WILLETT: It devolves on the National in a way.

Major TAYLOR: It ought not to. I was President of the Master Farriers' Association in the Midlands. They drew up an elaborate scale of fixed fees. It worked for a short time but eventually fizzled out because so many men charged what they liked.

The PRESIDENT: I am President of the Master Farriers' Association round here. We have put up the fees four times and have had no trouble.

The meeting unanimously agreed to have copies of these fees sent to the M.R.C.V.S. in Berks., Bucks., Oxfordshire, Gloucestershire, Wiltshire and Hampshire. It was also decided to send a copy to the National V.M.A.

The meeting passed a resolution to the effect that an additional fee be charged for each animal examined and also for consultations by letter or telephone.

#### RESOLUTION *re* MILK BILL.

On the proposition of the President the following resolution was agreed to: That the members of the Royal Counties Veterinary Medical Association pray that the Council of the R.C.V.S. take steps to protect the interests of veterinary practitioners in any appointments made under Bills that may be brought forward relating to milk, dairies and the inspection of cows, and so prevent such appointments passing into the hands of men who are not members of the R.C.V.S.

The following three representatives were elected to the Council of National Veterinary Association: The President, Mr. Pauer, Mr. Hancock and Mr. Coleman.

*Election of Members.* The following gentlemen were elected members of the Royal Counties Veterinary Association: Mr. P. LLOYD, proposed by the President; Mr. W. S. KING, proposed by Mr. J. Willett; and Mr. R. I. COLEMAN, proposed by hon. secretary.

*Balance Sheet.* Mr. J. Willett, hon. Treasurer, presented the balance sheet and said they have not so much balance in the bank as last year. Many members were still absent and he would like to have brought the past subscription up to date. But the President thought the matter might be left for a time.

The Treasurer was requested to write to two gentlemen who had not paid their entrance fees nor their subscription, pointing out to them that if these were not paid within six months the Association would be obliged to delete their names.

The financial statement was then adopted.

The Secretary regretted that in the list of names he omitted to give those of Major Simpson, Maidenhead; Mr. A. W. Hancock, Uxbridge; and Mr. F. H. W. Cundell, Swindon.

[The President's address appeared last week, p. 300]

Mr. J. WILLETT proposed a hearty vote of thanks to the President for the able manner in which he had dealt with the different problems connected with the profession. He thought they were all in cordial agreement with the views he had voiced. (The vote of thanks was seconded and carried with great cordiality.)

In acknowledgement the President said the only vote of thanks he wanted was for them to do all in their power to further the interests of the profession.

#### DINNER.

After the meeting the company sat down to dinner and were joined by a number of guests, including the Mayor, Alderman S. Hayward; Mr. E. M. Sturges, (Hon. Sec. of Garth Hunt); Col. Baldrey, C.M.G.; Messrs. J. Lousley, (Chairman of Berks., Bucks. and

Oxon Dairy Farmers' Assoc.); T. Chettle, O. Dixon, W. J. Cumber (Central Chamber of Agriculture and Milk Producers' Council), and Major Taylor.

It was regretted that the following were unavoidably prevented from attending:—Mr. W. A. Mount, M.P., Mr. Cecil Aldin, M.F.H. and Prof. J. Penberthy who was indisposed.

The PRESIDENT, Mr. G. P. Male, was in the Chair. The toast of the King having been proposed by the Chairman, Mr. Coleman gave the toast of the "Imperial Forces" and referred to the allied service's magnificent efforts in protecting the country in her hour of peril.

Col. BALDREY, R.A.V.C., responded.

Mr. Job LOUSLEY proposed the toast of "The Veterinary Profession," which, he said, stood higher today than ever before. He saw no fear of the motor tractor ever superseding horses. A great deal has yet to be done in the direction of increased research in veterinary work, and facilities should be granted and money found by the government, to carry out this research. He wished the profession every possible success, and concluded by coupling the toast with the name of Mr. Slocock.

Mr. SLOCOCK said he thought they should be given more chances in the scientific world than they had been given in the past. He pointed out how they were ridding the country of pleuro-pneumonia and rabies. Their profession had to be viewed from two different standpoints, the point from which others saw them and the point from which they saw themselves. He was, to some extent, responding for the Council of the R.C.V.S., and he referred to the vast amount of beneficial work carried through at the meetings of that Council, who were working for the good of the profession. But the Council was not what it should be. It did what it ought to do, and it did its best, but it ought to be composed of representatives of the whole profession. That rested—not with the members of the Council, but with the men who sent the members there. He mentioned that the profession numbered rather over 3000 members, but a member could be returned to the Council by 200 votes, and this fact showed that 90% of the profession viewed the election with apathy. It was the profession that wanted waking up.

Mr. E. M. STURGES in a humorous speech proposed "The Royal Counties Veterinary Association." He considered that the veterinary profession was never better represented throughout the length and breadth of the land than it was today.

Responding to the toast, the Chairman said that if everybody realised what the veterinary profession had done and were trying to do as much as Mr. Sturges and Mr. Lousley do, they would get more help from the State and Local authorities. The veterinary profession is bankrupt. They had to sell consols to raise funds to examine their students; and the Colleges were depending absolutely on the fees paid by the students for their education. During the war, the number of students had been very small, so that the Colleges were in a most deplorable condition. And this in a country which boasts the finest stock in the world!\* It had only to be brought to the notice of agriculturists for them to realise that the veterinary profession was bound up very closely with agriculture, and that if they increased the efficiency of the veterinary profession it was all to the benefit of agriculture. Therefore, anything they could do to help forward education or experimental research work was for the common good. He hoped Agriculturists would use their influence in trying to get State aid

\*Since this was said, a two-year-old pedigree bull was sold at Penrith for 4750 gns., and one at Perth for 4000 gns. Others for 3300, and 2600 gns. Two pedigree bull calves 24000 and 4750 gns.

for the veterinary colleges—as every other country did. In this period of reconstruction he hoped some of the money would go into the coffers of the veterinary profession.

Mr. T. W. LEPPER proposed the toast of the Mayor and Corporation of Reading, and said he looked upon Reading as the home of their Association, where they held their annual meetings.

The MAYOR in acknowledgement, said he was not quite such a stranger to their profession as they might imagine, having worked under his father, who was a chemist. Anything the Corporation could do to help the profession they would be only too delighted to do, for they had the greatest confidence in their veterinary surgeons.

Mr. J. WILLETT in a felicitous speech proposed The Guests. He said the Association was honoured by the presence of so many distinguished guests who represented all branches of agriculture. He hoped that when the Milk Bill was framed the Veterinary Surgeon would be given his rightful position.

He coupled with the toast the names of Mr. W. J. Cumber, who was on most of the Committees dealing with this milk question, and was also on the Council of the Shire Horse Society, and of Mr. T. Chettle, a noted breeder of Berkshire Pigs and Secretary of the Dairy Farmers Association.

Mr. W. J. CUMBER responding, said the authorities who demanded pure milk should be very careful in their actions, and should not drive the milk entirely off the market. The authorities should send round to the farmers men in whom they could place confidence; otherwise they would seriously curtail the production of milk in the country. If the veterinary profession had not the necessary financial means for developing research work in the future, it was the duty of the government to provide that money, and thus ensure the pure milk supply for the consuming public. No one was more keen than he to see the tuberculous cow removed from the field of milk production, but there was such a prevalence of tuberculous cows that it was a matter which called for great care. These cows were not to be ruled out wholesale, as some members of the medical profession advocated, otherwise there would not be nearly sufficient milk for the public. He hoped the day was not far distant when instead of many of their cows reacting to the test, as they do to-day, it would be a rare occurrence. That could only be brought about as a result of very careful work between the veterinary surgeons and the farmers. They must be very careful in future not to be led into very dangerous paths by men who were faddists.

Mr. T. CHETTLE, who also responded, said that the Dairy and Cow Shed Order gave a good deal of power to the medical Officer of Health. He thought the Medical Officer of health went out of his sphere when he touched animals. The legislature should give to the veterinary surgeon more influence over the management of the dairy herds, in the way of cow sheds and so forth. People had gone mad in regard to the proportion of butter fat, but he believed in clean milk from a healthy animal, irrespective of the proportion of butter fat. Many a farmer had been condemned, fined and branded as a criminal in this connection, irrespective of the fact that there were plenty of cows giving milk below the standard named.

As agriculturists they were much indebted to the veterinary profession, who often saved them from serious losses.

An excellent musical programme was provided.

J. C. COLEMAN, Hon. Sec.

## DERBYSHIRE VETERINARY ASSOCIATION.

[NATIONAL V.M.A.—NORTHERN BRANCH.]

A Special Meeting was held at Derby on Friday February 21st. The President Mr. A. Levie occupied the chair, and there were also present: Messrs. Howe, Wirksworth; White, Castle Donnington; Marrison, Bakewell; H. Fairer, Derby; T. Abell, Derby; Heather, Sandiacre; Aulton, Tutbury; T. H. L. Duckworth, Ashbourne; Hawksworth, Etwell; and F. Prince, Hon. Sec., Ashbourne.

The PRESIDENT said he hoped they would excuse him calling a special meeting at such a busy season, but there were matters to be dealt with which ought not to be deferred, and he thought they might employ their time as profitably as by attending to their ordinary business. They were now, like other professions and trades, passing through a very serious crisis, and it was up to them to grasp the opportunity that now presented itself if they were to move forward as they hoped to do. If the opportunity were neglected, it might never come their way again. The agenda contained several items of importance and he intended to refer to them briefly and then invite the meeting to come to a decision upon them. He trusted that they would be unanimous, because unity of purpose was all important at this juncture, and unless they were all of one mind, the goal before them would never be reached.

The first question was the presence at agricultural shows of vendors of veterinary medicines and surgical appliances. It was discussed at their last meeting, but he was not satisfied with what was done on that occasion. He suggested that after coming to a unanimous agreement among themselves they should take the matter up with the Secretaries of the various agricultural shows in Derbyshire and the adjoining counties, making it clear to them that unless they were prepared to cease letting stalls or stands to quacks, members of the veterinary profession would withdraw their services. He further asked his fellow practitioners, in case agricultural societies failed to satisfy them in that respect, to resign all connection with such societies by way of protest. Let them all resign *en bloc* and he believed their protest would then be effective.

The next item related to veterinary surgeons attending agricultural shows professionally. He asked the meeting to support him in the suggestion that they should endeavour to persuade the whole of the profession not to accept any office, even if they were paid, under any agricultural society that allowed quacks to have stands at their shows. He thought they had the matter entirely in their own hands, but they must all be united in their determination to carry their point. The vendor of quack medicines was the most destructive agent they had to fight. A quack firm often sold as much medicine in a few hours at a show as a veterinary surgeon sold in a whole week, and it was not fair either to them as a profession or to their clients.

Often when a veterinary surgeon was called in to a case he found that some quack remedy had been applied in vain, and he was handicapped by not knowing what that particular medicine was which had to be counteracted. It was a national question, and that was why he thought they had a right to expect assistance in their crusade from veterinary surgeons all over the country. They were strong enough in Derbyshire to form the nucleus of a body of veterinary surgeons quite capable of dealing a staggering blow to the vendors of quack medicines.

The next question was that of local authorities and mileage, which was one of great importance to them. As veterinary surgeons, they were not recognised by local authorities as they ought to be, and they were often asked to do work at a lower rate than was paid to the

ordinary tradesman, and he put that down to the fact that they were too frequently divided in their counsels.

Item No. 4 related to the fees allowed to veterinary surgeons by Insurance Companies. Some companies were prepared to pay the 10/6 which veterinary surgeons asked for an examination, but others would not do so if they could help it. In proof of that, he mentioned a recent experience, when he was asked to travel six or seven miles to examine a horse by a company whose maximum fee was 4/-. Was it reasonable to expect a professional man to put his other work aside and go that distance for a paltry 4/-? He wrote to the company saying he should require the full fee, and a few days later they replied that they would not need his services, as they had made other arrangements for the examination of this horse. He would leave the meeting to form their own conclusions as to what must have happened.

The fifth item was, "Petrol for veterinary surgeons at cost price." They were large consumers of petrol, many of them as much as 600 gallons a year and even more, and they used it in the pursuit of a noble profession. Yet, whilst their next door neighbour, if he happened to be a grocer or a draper, got his petrol at cost price, veterinary surgeons were not allowed that privilege. He suggested that they should approach the Government department responsible for the control of the petrol supply and get that altered. A tradesman could buy his petrol today at 2/10½ per gallon whilst a veterinary surgeon had to pay 3/3½. Why should a veterinary surgeon be compelled to pay 5d. a gallon more than other people? It was most unjust, and ought to be remedied, but that again could only be done by the whole profession showing a united front.

Item No. 6. was perhaps the crux of the whole situation, and it was, "The advisability of forming a union to strengthen our position as practitioners in relation to representation on public bodies." That was where want of unity had done them most harm. It was no use blaming local authorities for anything that happened; it was the veterinary surgeons own fault for not being represented on those bodies in order to see that the profession secured proper recognition. He urged them to unite with other veterinary societies in achieving their object, and thus gain their rights whilst the country was being re-constructed. They had no representation in parliament, which was scarcely creditable to a body of professional men three thousand strong. Surely they were entitled to some voice in the making of the laws, and it was because they had been left in the cold in the past that they were obliged to suffer so many injustices to-day.

He attributed most of their troubles as a profession to the fact that they were not properly represented on public bodies, and the blame for that lay very largely at their own doors. He looked to Derbyshire to take the lead in this matter and throw its tentacles out until they caught all the other societies in their grasp. When every other society in the kingdom came to Derbyshire's way of thinking the profession would be able to move forward with irresistible force.

Discussion followed, and eventually the following resolutions were carried unanimously:—

(1) Proposed by Mr. Heather and seconded by Mr. Abell, "That veterinary surgeons refuse to act in a professional capacity at Live Stock shows where vendors of animal medicines and surgical appliances are allowed to have stands for the purpose of exhibiting or offering such articles for sale";

(2) Proposed by Mr. Aulton and seconded by Mr. Duckworth, "That veterinary surgeons attending officially at shows shall receive a fee";

(3) Proposed by Mr. Harrison and seconded by Mr. Duckworth, "That this Society approach Local Authorities with a view to their increasing the present fee to a

minimum of 10/6 for an inspection and 9d. for every mile actually travelled";

(4) Proposed by Mr. Heather and seconded by Mr. Fairer, "That the Secretary be instructed to write to the Petrol Control Committee requesting that veterinary surgeons be supplied with petrol at the same rate as that charged to the trade";

(5) Proposed by Mr. Duckworth and seconded by Mr. Heather, "That this Society considers advisable the formation of a Union to strengthen our position as practitioners by securing representation in Parliament and upon County Councils, Town Councils and other local administrative bodies: and also to ensure that we are suitably represented on the Council of the Royal College of Veterinary Surgeons".

The meeting concluded with the usual votes of thanks.

F. T. PRINCE, Hon. Sec.

VETERINARY AND COMPARATIVE OPHTHALMOLOGY. By Dr. EUGENE NICOLAS. Translated, edited and enlarged by HENRY GRAY, M.R.C.V.S. Cr. 8vo., pp. xvi. + 598, including 20 p. Index, 225 figures in the text. 15s. net. Postage 6d. H. & W. Brown, 20 Fulham Road, London, S.W. 8.

Mr. Henry Gray, M.R.C.V.S., deserves the gratitude and congratulations of the veterinary profession in the English speaking world for having translated, edited, and largely amplified the excellent work of Dr. Eugène Nicolas, a French veterinarian, on veterinary and comparative ophthalmology, in the form of a neat and handy volume of 600 pages.

The treatise supplies a long felt want, as it is the first one in the English language dealing exhaustively with the affections of the eye and its appendages from a veterinary and comparative point of view.

It includes all the up-to-date knowledge on veterinary and human ophthalmology and is arranged in chapters as follows:—

General remarks on the anatomy of the eye: The eye from an optical point of view: Method of examination of the eye: Ophthalmoscopic examination of a normal eye: The conjunctiva: The sclera and cornea: The uveal tract: The retina and optic nerve: The crystalline lens: The vitreous humour: Glaucomatous affections: The orbit: The eyelids: The lacrimal apparatus: Motor apparatus: Ocular therapeutics and formulary.

The French regulations concerning the affections of the eye in connection with returnable vices are also given.

The anatomy of each part of the eye is fully described before referring to its lesions, thus avoiding the wearisome revision of the anatomy of the eye *en bloc*, and keeping the structure of the part clearly before the mind at the required moment.

The sections dealing with the examination of the eye, cataracts, opacities of the cornea, and affections of the uveal tract, including a long article on recurrent ophthalmia; will be particularly welcomed by clinicians, as they contain more than is commonly known on these practical subjects.

A knowledge of optics is necessary to appreciate the chapter on the "Eye from an optical point of view."

The chapter on therapeutics and formulary contains the latest therapeutic agents and formulae recommended for the various diseases of the eye. All the ophthalmic surgical operations are described in detail. The large number of references and quotations in the text reveal great industry and painstaking on the part of the translator.

The work is profusely illustrated with diagrams and drawings but the coloured plates printed in France and intended for insertion had to be omitted owing to the outbreak of the war.

The captious critic could doubtless find faults in the book, but they are so insignificant compared with its praiseworthy features that they may be ignored. There are several slight errata which are pointed out in a list at the end of the volume.

It is pleasing to note that the work is dedicated to the memory of the late Mr. William Hunting who took such a keen interest in clinical veterinary practice, and endeared himself so much to his *confrères* by his many admirable qualities

J. J. O'C.

#### THE COUNCIL OF THE R.C.V.S AND THE COMING ELECTION.

To the Editor of "The Veterinary Record."

Dear Sir,—I am today in receipt of your issue under date of 28th, Dec, containing report of the meeting of Royal Counties V.M.A. with its discussions on "After-War Problems" in which is embodied a criticism of the present council of the R.C.V.S.

I feel confident this is a matter which will evoke widespread interest amongst the members of our profession and we owe the President of the R.C.V.M.A. a vote of thanks for his timely pert, and pointed remarks on a subject which must have been on the thoughts of many who have been following the happenings at 10, Red Lion Square during the past four years.

Take the conduct of the members who constitute the Registration Committee. What right had they as our representatives to absent themselves from the meetings and neglect the proper conduct of our affairs? There were but two occasions a quorum present out of fourteen meetings, a downright scandal, and amounted to pure persecution of those members involved in the cases that came up for their consideration. If any member of the Registration Committee was granted a temporary commission in the A.V.C. why did he not resign his seat on the Council "for duration"? The profession would have thought none the less of him if he had, seeing one of the conditions of his Army appointment was that he devote the whole of his attention to the duties of his office. Again, the "stay-at-homes" pleaded over-work. More the reason they should have resigned also, than be a non-effective member of a body and hinder the administration of its work. Amongst some of the views expressed at the discussion were:—

- 1 Some members of Council are head and shoulders above others.
- 2 New and vigorous blood is wanted on the Council.
- 3 The Schools are over represented, and rule the profession.
- 4 The Council has no interest in things nearest to heart of the general practitioner.

Taking these paragraphs in rotation; my views are that:—

1 Some members are head and shoulders above others and all credit to them, pity that we had not a few more such gifted men on the Council. I bow to no member, in my admiration for the untiring energy, zeal and devotion to duty of our present President and his few worthy compatriots. The loss of efficiency is not theirs but rests with the inert "remainder."

2 New and vigorous blood is decidedly required on the Council. Let the members wake up and take more interest in the elections of the council, review the work done by the present councilmen, and the attendance-roll statistics, and let the various associations for the coming election put forward a candidate, and if successful at the election, provide him with a list of their grievances for his information and necessary action. I can enumerate half-a-dozen capable men north of the Tweed who

would be new and vigorous blood and at whose hands all matters pertaining to the welfare of the profession would be safe; at any rate they could be trusted to help, not hinder, the members who are "head and shoulders above the others."

3 That the schools are over represented; I don't agree. There are only five members of the present council connected with the schools, and with the many new difficulties that lie in front of our "budding" veterinarians and their course of training, the call is for better representation of the schools on our council.

4 The members of the profession generally have the remedy in their own hands, and if the association adopt the procedure I indicate in my answer to second paragraph—nominate a general practitioner or veterinary inspectors who by dint of sheer ability, hard work and business acumen as private practitioners knew what it was to "paddle their own canoe" to their higher state of officialdom, they may take the place of the many "dud" members now on the council.

In conclusion, we must have the Royal Army Veterinary Corps and the Board of Agriculture represented on the council, and for these representatives we have not far to look.

With reference to men who have been in A.V.C. ranks during the war, and the probability of many ex-A.V.C. sergeants being dumped down throughout the country upon general demobilisation, it is to be sincerely hoped that the Council will make ample provision for dealing with them in their gratuitous advice on ailments and administration of their "pet" stock remedies.

I may say, that amongst the many subjects placed on the curriculum for instruction of N.C.O.'s and men, awaiting demobilization here, is veterinary science. But I hold out no fear from the opposition of any scholars in this class, with the knowledge imparted to them by the lecturer. On the other hand, it is God help the stock owners who are tempted to trust the value of their patients in the hands of such "wise acres" demobilized.

I would repeat. Let the members of the profession wake up:—see to reconstruction of the council and their better representation. Let us drop the "duds," and those who never show any initiative in the proceedings, but when a lead is given them they have always much grumbling and "playing to the gallery"—all to no purpose.—I am, Sir, Yours faithfully,

With the W. GARDNER, M.R.C.V.S.  
Egyptian E. Forces, Jan. 27th.

[The Registration Committee is the whole Council. This is a safeguard to the individual member, but makes the necessary quorum two thirds of the members—twenty-two: and at least three-fourths—(seventeen) of these must vote on the question.]

#### THE CONTROL OF CONTAGIOUS DISEASES OF ANIMALS.

Sir,—Mr. Davis's letter, and that of "non subscriber" in your issue of Feb'y, 22nd., refer very much to the same subject—the question of Veterinary Inspectors.

Every practitioner knows that under its present system the Board of Agriculture has not the full-hearted support from the bulk of practitioners that it should have. The present system of local Inspectorship is not getting the results it should, and never will be effectual. What you refer to as "clinical errors" and what may be described as such, abound.

I agree with "non-subscriber"—that each practitioner should be an Inspector for his own practice: or failing this, that whole-time Inspectors should be appointed, each Inspector being allotted a certain area, in which he should carry out all Inspections: and I believe if



practical, tactful men were chosen for this purpose, that the Board of Agriculture would be surprised at the support it would get from both Veterinary Surgeons and Agriculturists, and also at the results.

If Veterinary Surgeons are to act as Inspectors under the Milk Act something of this sort will have to be done, or affairs will be more chaotic than ever in the profession, and there will be a considerable further falling off in the Milk supply—which, of course, doesn't directly concern us. Dairy farmers in my neighbourhood are not averse to inspection by practical men, but are up against incompetent Inspectors, and Veterinary Inspectors who call and cast aspersions on their Veterinary attendant. Many have already "got the wind up" in view of the coming Act, and say that rather than submit to it they will sell out, and one can't blame them.

I think the profession must now go right ahead or take permanently a back seat.

What a splendid opportunity the present time offers to such a man as Sir Stewart Stockman or other prominent members to re-organise the whole profession, not only for its own good but for that of the State, and at the same time do away with all the present discontent and apathy in the profession. The R.C.V.S., I am afraid, is beyond hope for that purpose.—Yours truly,

Feb. 24th.

COUNTRY PRACTITIONER.

#### THE CUMBERLAND ETHICAL CODE.

Sir,—In your last issue, some rules were set out suggested by nine Cumberland practitioners as a guide for professional conduct as between the members of a proposed federation of practitioners. These gentlemen are to be congratulated on coming to an understanding. But one of their rules was that no member should serve a new client unless the latter first wrote to his former V.S. to acquaint him with the change; and the newly employed V.S. also had to write to the same effect.

Now I do not see why this procedure is either necessary or advisable. It is a free country still, and a client has a perfect right to employ whoever he likes. If a new client came to me with an animal which had not been just previously in veterinary hands, I should not consider it necessary to ask any questions about his former V.S. If a client came to me with an animal which had been in other veterinary hands just previously, I should consider it was up to me to make sure, before taking on the case, that the other V.S. would not be employed again on it; but it would not be necessary to write a lot of letters to find that out.

As it stands, the Cumberland practitioners' ruling suggests that an established man is to have an advantage over a newcomer. Every client the newcomer got would be supposed to write to his former V.S. to explain that he had finished with him. I do not intend that any such ruling shall handicap me when I am demobilised, after the sacrifice of 4½ years' military service, and I am not likely to buy a practice, because too much is being asked for "goodwill," which I consider is worth little in the present state of industrial and agricultural uncertainty.

I think the Cumberland men have gone a little too far in this matter, but a discussion on the subject in your columns might do some good.—Yours truly,

TEMPORARY BLIGHTER.

#### The R.A.V.C. Comforts Fund.

Dear Sir,—May we ask you again to print in *The Record* the latest subscriptions to the R.A.V.C. Comforts Fund.

We are once more greatly indebted to Lieut.-Colonel F. C. Stratton for his ever-ready help, which began in

1914 and has continued up to now. With the help of his friends in the Scottish Command—of whom I enclose a list—he has sent us the very useful sum of £30.

We are also most grateful to Lieut.-Col. K. M'L. McKenzie, D.S.O., for the sum he sent us from France, and to all those who have again contributed money and woollen goods.—Yours faithfully,

E. A. BLENKINSOP.

29/7 Bramham Gardens, S.W.  
17th Feb., 1919.

#### Subscriptions received to Feb. 6th, 1919.

Mrs. Dunkin, Sutton, Surrey	£1	1	0
Lt.-Col. K. McKenzie, D.S.O., R.A.V.C.	4	0	0
Mrs Fenn	1	0	0
	£6	1	0

Collected by Lt.-Col. F. C. Stratton, R.A.V.C., A.D.V.S.,  
Scottish Command.

1918-19.

Anderson, W. Keith	£1	1	0
Bannatyne, W., Haddington	2	2	0
Baird, J., Dumfries	2	2	0
Beattie, J., Longside	1	1	0
Borthwick, J., Kirkliston	1	1	0
Brown, J. (F), Invergordon	1	1	0
Connochie, R. H., St. Boswells	10	0	
Gibson, J., Dundee	1	1	0
Forbes, W. G., Kilmarnock	2	2	0
Gilmor, H., Ayr	1	1	0
Hepburn, W., Aberdeen	1	1	0
Panton, A., Blair Atholl	15	0	
Pottie, J. D., Greenock	10	0	
Reynard, J. G., Perth	2	2	0
Reynard, J. N., Manuel	3	3	0
Robb, W. & A. (F), Glasgow	2	2	0
Scott, R., Hawick	1	1	0
Major A. Baird, Edinburgh	2	2	0
N.C.Os. and men of Lowland			
Divnl. Vety. Hosp., Stirling	5	0	0—30 18 0
Brought down	6	1	0
Previously acknowledged	2073	18	7
	£2110	17	7

#### Parcels received.

St. Alban's Work Party: 10 mufflers, 4 pr. cuffs, 1 pr. mittens.

Mrs. Garnett: 30 mufflers, 1 pr. socks.

Mrs. Porteous: 19 mufflers, 9 caps and helmets.

Mrs. Gordon: 6 mufflers, 1 cap.

#### Danger of Basic Slag to Stock.

A correspondent writes in *The Farmers' Gazette*:—

Sir,—I cannot agree with your reply in your issue of January 4th, as to there being no danger in grazing live stock on land top-dressed with basic slag immediately after its application. It certainly is not the case with sheep, and I consider it in the highest degree dangerous to allow sheep to graze on land top-dressed with basic slag until rain or dew has washed it off the herbage.

Two years ago after top-dressing a field with basic slag, 5 cwt. to Irish acre, the gate between it and adjoining field, where some black-faced horny ewes were grazing, was carelessly left open for the night, and some of them were found in the dressed field next morning. They were at once removed, but in the following three days two of them died, and a third a couple of days

after. The cause of death was the same in each case, basic slag impacted into a lump in the intestines, and acute inflammation resulting therefrom.—Yours, etc.,

Stradbally, Queen's Co.

JOHN W. YOUNG.

[We should prefer to call this the danger of an open gate.]

### The Army Mare Scheme.

Before some Cheshire farmers, recently, a circular letter from the Board of Agriculture was read regarding the demobilisation of Army horses, and offering to lend them to farmers to encourage the breeding of horses of artillery type. A mare will be placed out for breeding purposes with a custodian at an annual rental of £2, and she will be allowed to remain in his possession so long as the prescribed conditions are observed. The rent is to be payable in advance, and the first payment is due on the day on which the mare is received by the custodian and shall be paid within fourteen days of that date. In subsequent years, the rent shall be payable on April 1st.

A mare must at all times be properly cared for by the custodian, used only for reasonable work and kept in his possession. The Board and the War Office have a lieu on the progeny of a mare when three years old at £50, and no progeny can be sold without the permission of the Board until October 1st in the year in which it is a three-year-old. A custodian may, however, at any time, claim exemption from this condition on payment to the Board of a forfeit of £10.

### ARMY VETERINARY SERVICE

Buckingham Palace, Mar. 1.

The King held an Investiture in the Ball Room of the Palace, when the following Officers were severally introduced into the presence of the King. His Majesty then invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted :—

\* \* \* \*

#### THE DISTINGUISHED SERVICE ORDER.

Major Hugh Gibbs, R.A.V.C.

#### ORDER OF THE BRITISH EMPIRE.

The King has been pleased to give orders for the following appointments to the Most Excellent Order of the British Empire, for valuable services rendered in connection with military operations in Mesopotamia. The appointments to date from January 1 :—

\* \* \* \*

O.B.E. (Military Division).

Temp. Capt. J. R. Hewer.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Feb. 28.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Lt. A. H. Morris to be temp. Capt. (Feb. 1).

Mar. 4.

Maj. W. C. Lowe, F.R.C.V.S., relinquishes actg. rank of Lt.-Col. (Feb. 13).

The following relinquish their comms. :—Temp. Capt. R. P. Johns, acct. of ill-health (Mar. 5), and retains rank of Capt. ; temp. Hon. Capt. F. Armstrong, on ceasing to be empld. (Feb. 8), and retains hon. rank of Capt.

The War Office announces the following casualty :—  
Capt. J. Bradley, R.A.V.C., attd. R.F.A.

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Feb. 28.

Capt. (temp. Maj., actg. Lt.-Col.), E. W. Parks, O.B.E., to be Maj., and to retain actg. rank of Lt.-Col. (Jan. 12).

Mar. 1.

Maj. J. Abson, D.S.O., F.R.C.V.S., is retired, having attained the age limit (Mar. 2), and retains rank of Maj., with permission to wear the prescribed uniform.

ERRATUM. In our issue of Feb. 1, p. 271, Capt. R. P. Jones, attd. S.A.F.A., was inadvertently placed under heading N.Z.V.C.

### OBITUARY.

W. J. FOREMAN, Leadgate, Co. Durham.

Graduated Lond: Dec, 1894.

Mr. Foreman's death occurred on Feb. 18th, at the age of 46.

"We understand that Mr. Foreman caught cold nearly three weeks since, influenza developed about a week ago, followed by pneumonia, and despite the devoted attention and medical skill, the patient succumbed. In Leadgate especially the sad news called forth expressions of sincere sorrow, for no man was more honoured and esteemed. His genial and kindly disposition and his winning personality endeared him to his numerous friends. In the home circle, the loss is irreparable, as Mr. Foreman was a devoted husband and a loving father who was idolised by his children.

Councillor Foreman was one of the oldest members of the Leadgate U.D.C., first elected 21 ago, when the late Mr. Thos. Foreman retired from the Council, and his son—then a very young man—was induced to come forward, with the result that he headed the poll. In due course he was called to the chair—just at the time that the new Council premises were opened—and in honour of the occasion he and Mrs. Foreman entertained the members of the Council, the officials etc. Councillor Foreman occupied the chair for three years with every satisfaction to those concerned, and also took his seat upon the bench. He was elected Chairman of the Leadgate Tribunal, and discharged the responsible duties with tact and impartiality. He took keen interest in and acted as treasurer to the local War Savings Association. He was a staunch Churchman, and a Conservative in politics. A few years since he was chosen to follow his late respected father as people's warden at St. Ives Church, Leadgate—a position which he filled with conspicuous ability. In fact in everything Mr. Foreman took in hand he was thorough and conscientious. A man of sterling and upright character, whose word was his bond, he was rightly looked upon as possessing all the attributes that go to make up a typical English gentleman.

In his younger days Mr. Foreman was a keen athlete. He captained the Leadgate Park football team at a time when a very strong side achieved some notable victories. The defence of Councillor Foreman and his brother Frank, at back, was a feature in those days. Later on he became president of the club. He was also a great lover of tennis. He was the first president of the Blackhill and District Institutes Billiard Tournament. His was a busy, well-spent life which has ended all too quickly. In addition to keeping his large practice going he found time to serve his fellow men in many valuable ways, and this he did cheerfully and willingly."

G. S. HEATLEY, East Dulwich, S.E.

Edin: Jan. 1883.

Mr. Heatley died Feb. 24th, aged 70.

#### The Late Mr. Oxenham.

On Feb. 10th. the whole of the Aberdare Valley was shocked to hear of the sudden death of Mr. Oxenham, of Mountain Ash. Whilst in pursuance of his ordinary occupation at Cwm-dare Collieries a sudden seizure felled him to the ground, and he passed away in a few moments. Mr. Oxenham was the veterinary surgeon to Messrs. Nixons Navigation Colliery and Bwlfi Merthyr Dare Colliery Co.—a position that he had held for a number of years. During that time his long experience in purchasing the right stamp of colliery horse was of great value to both companies. As a man amongst men he was held in high esteem, and whether it was the pit proprietor's horse, the collier's dog, or the hawker's pony, he was ever ready to give his services in both senses of the word. The doctor, as he was affectionately called by his friends, was a real pal. In sport he was one of the best, and support—monetary and advisory—was always tendered. Local horse show committee know this only too well, and the Aberdare societies will feel his death very severely. In politics he was broad-minded perhaps leaning towards Conservatism, but he was a rare one for having the best man, just as he was for the best horse—no matter what colour. He was a brother of the Freemason craft of St. Davids Lodge Aberdare. He was born in Aberdare 46 years ago, was a pupil of Mr. Temple, of Aberdare, and took his degree at Edinburgh College. He leaves a sorrowing widow, one son, and one daughter. His son, Ivor, is at Brecon College.

HARRY BLAKEWAY, B.Sc., M.S. LOND., F.R.C.S. ENG.,  
Resident Assist. Surgeon, St. Bartholomew's Hosp.

Influenzal pneumonia has claimed another member of the staff of St. Bartholomew's Hospital. Harry Blakeway was the son of James Blakeway, of Stourbridge, and was educated in his native town before coming up to a brilliant career in London University. He started in preparing himself for a medical career by taking a science degree in 1905. After carrying off most of the prizes and scholarships available to students at St. Bartholomew's Hospital, he qualified M.B., B.S. in 1908 and took the highest distinctions in surgery at the University and at the Royal College of Surgeons of England two years later. In conformity with a usual practice, he became house surgeon to the Great Northern Central Hospital before returning to his own school, where he was successively house surgeon, demonstrator of anatomy, surgical registrar, temporary assistant surgeon, finally occupying the emergency war-time post of resident assistant surgeon. Of the occupancy of this post a colleague (R.M.V.) writes:—

"During the last years of Blakeway's life he was one of those to whose lot it fell to remain out of the hustle and turmoil and interest of the war, and he laboured unceasingly and untiringly at the less glorious but none the less essential work in the school of his adoption as resident assistant surgeon. Much of the weight of the civilian practice of the hospital fell on his shoulders and he worked nobly and well to maintain the high standards of the past."

This appointment left him but little time to work at the surgical diseases of children and the treatment of hernia, subjects in which he took peculiar interest, but he was surgeon in charge of out-patients at Victoria Hospital for Children and assistant surgeon to the City

of London Truss Society. Blakeway's signed writings are limited to a number of brief but well-digested papers on surgical topics, including his Hunterian Lecture on the Operative Treatment of Cleft Palate, delivered in 1915; but he was widely read in surgical literature, and was a valued author of unsigned reviews in our columns.

Although for Blakeway work was its own reward and he laboured for no other, his friends must regret that he did not live to reap the benefit of years of unending toil. In him surgery has lost a straight and earnest disciple, and his colleagues mourn a good and genial friend. He leaves a widow and three children, to whom we tender our heartfelt sympathy.—*The Lancet*.

[Second son of Mr. James Blakeway, M.R.C.V.S., of Stourbridge.]

Many South Africans in this country will have been shocked at the tragic fate of young Ridlington, who got "caught up" in the tapes at the start of a race in Johannesburg, and was thrown and killed. One who knew the boy and his family well tells me that Ridlington was one of the finest jockeys under the Southern Cross. His father is a well-known trainer and sporting journalist—editor of the "Licensed Victuallers' Gazette," I believe, in Johannesburg—and the poor boy was a grandson of Mr. A. Ridlington (of Ramsey, Hunts), a prominent veterinary surgeon. The youngster was both clever and clean, and was a familiar figure in the saddle all over the country.

#### Personal.

Mr. SIDNEY VILLAR, who was for some time seriously ill, was able, a fortnight ago, to leave hospital at Twyford, and is now convalescent at Osborne, Isle of Wight.

Mr. RICHARD SAM REYNOLDS, M.R.C.V.S., of Knotty Ash, near Liverpool, and of Blidworth, Nottingham, one of the early members of the Shire Horse Society and of the Royal Lancashire Horse Society, a judge of draught horses at the principal shows in England, left £25,643.

At a meeting of the Contagious Diseases (Animals) Committee, Hunts County Council, Capt. W. K. TOWNSON was appointed Veterinary Inspector, Norman Cross Division, Hunts, in place of Mr. J. Mackinder, resigned.

#### RESTORATION TO THE PHARMACOPOEIA OF PREPARATIONS CONTAINING SUGAR, GLYCERIN, AND CERTAIN OILS AND FATS.

"The Acting Registrar of the General Medical Council has favoured us with a copy of the subjoined official intimation:—

At its meeting on February 24th, 1919, the Executive Committee of this Council considered the advisability of withdrawing the temporary alterations in the British Pharmacopœia, published in the *Gazette* of July 27th, 1917, and March 29th, 1918, arising out of the scarcity during the war of sugar, glycerin, and certain oils and fats, and adopted the following resolution:—

"That the Executive Committee, on behalf of the Council, order and direct that on and after April 30, 1919, the British Pharmacopœia, 1914, shall be altered and amended by revoking and withdrawing the alterations and amendments made and published in the *Gazette* of July 27, 1917, and March 29, 1918, and that formal intimation of such revocation and withdrawal be published, according to law, in the *Gazettes* of London, Edinburgh, and Dublin on April 30, 1919."

*The Pharmaceutical Journal*

## CONCERNING A BYE-LAW.

To the Editor of "The Veterinary Record."

Dear Sir,—I send you the following case for the information of the profession.

Mr. X satisfactorily attended the various classes in the Dublin College in 1918 for the Class B examination with the exception of four weeks during which he was absent on account of illness prior to his examination, which he was unable to sit for.

Private circumstances now compel Mr. X to attend the Glasgow College. He voluntarily rejoined College in January 1919 so as to get in 20 weeks more study for his B examination in July—a total of 46 weeks.

At the last meeting of the Examination Committee of the Council (at which I was unable to be present) this student was refused permission to sit for his B examination in July because he does not fulfil the requirements of Bye-law 62 which says he must have satisfactorily attended "for one session (30 weeks) at one of the affiliated Veterinary Schools." He will have put in 26 weeks in Dublin and 20 weeks in Glasgow yet he cannot sit for his examination because he has not put in 30 weeks at one College.

My own view is that one is meant to take the spirit and not the letter of this Bye-law.

Now, sir, I am not in sympathy at all with those who have recently been hurling abuse at members of Council, but a decision such as the above does make one think. It would be merely silly, if it were not such an injustice to the student.

If some Members of Council take such narrow-minded and petty views on details, how is the Council, as a whole, to deal with larger and more important matters, concerning the welfare of the profession, in the right spirit?—Yours faithfully,

S. H. GAIGER, F.R.C.V.S.

Glasgow Veterinary College, 5th March.

## Prosecution by the R.C.V.S.

At Halesworth (Suffolk) Petty Sessions, 27th February, 1919, Charles M. Smith, of Wrentham, was summoned for unlawfully using the description "veterinary surgeon."

Mr. Geoffrey Bracey, solicitor, on behalf of Messrs. Angell and Foward, solicitors, Beccles, appeared to prosecute for the Royal College of Veterinary Surgeons. Mr. Bracey stated that the offence consisted in signing the necessary document for the removal of three dogs from the infected rabies area of Cornwall and Devon, without legal authority.

Mr. Ernest Cooper, solicitor, of Southwold, appeared for the defendant, and said he had served 12 years with the Yeomanry, and was discharged from the Army owing to his usefulness to the farmers of the neighbourhood. He had assisted his grandfather, who was a veterinary, for several years, and thereby had not the opportunity of passing through the necessary examination of King's College. The Bench imposed a fine of 40s., and costs £4. *East Anglian Daily Times.*

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered.
	Dogs.	Other Animals											
			(a)		(a)		(b)		(b)		(b)		
Gr. BRITAIN.													
Week ended March 1	3		4	7	1	2	1	1	164	325	6	20	11
Corresponding week in	1918		9	9			2	20	120	228	12	11	3
	1917		10	22					71	163	20	49	21
	1916		15	18			2	6	50	104	5	97	232
Total for 9 weeks, 1919	19	3	37	54	17	91	1	1	1554	3239	156	175	61
Corresponding period in	1918		63	72			5	24	1399	2696	173	124	38
	1917		127	153			5	9	751	1608	272	358	124
	1916		117	136	1	24	15	46	774	1958	132	704	2166

‡ The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

a) Confirmed. (b) Reported by Local Authorities

† Counties affected, animals attacked :—York, West Riding 1

Board of Agriculture and Fisheries, March 4, 1919

Excluding outbreaks in army horses.

IRELAND.	Week ended March 1	...	...	...	...	...	...	Outbreaks	5	3	...	...
Corresponding Week in												
1918	...	...	...	...	...	...	...	2	13	1	5	
1917	...	...	...	...	...	...	...	...	7	4	39	
1916	...	...	...	...	...	...	...	1	13	5	20	
Total for 9 weeks, 1919	...	...	...	...	...	...	...	30	91	9	38	
Corresponding period in												
1918	...	...	...	...	...	...	...	37	119	3	19	
1917	...	...	2	2	...	...	1	7	131	35	238	
1916	...	...	1	5	...	...	...	18	142	36	105	

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, March 3, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1601.

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## AN ANNIVERSARY: AND A RETROSPECT.

Probably few veterinarians will have noticed that last Saturday was an important anniversary for us. Our first Charter is dated March 8th, 1844; so the profession attained its seventy-fifth birthday last week. This would be a noteworthy landmark under any conditions; and it becomes more so from occurring at such a singular and critical period of our history, and indeed of all history.

Looking back over the three quarters of a century, we have much cause for satisfaction. Considering what we were at the beginning, the difficulties that have confronted us, and the little outside help we have had, the wonder is that we have advanced so far in three generations. Our past progress gives us good hope for the future, however dubious the immediate present may appear.

Just now we hear the profession described as "seething with discontent," and so it is. So, probably, is almost every other section of the nation—if we except professional warriors and the numerous species classed generically as "war profiteers." The present unrest in the veterinary profession is very similar to that which is agitating the whole country, depending upon much the same causes, and developing along analogous lines. Old grievances have become more acute and some new ones arisen; and some parties unfortunately seem to think that all can, somehow, be remedied at once. Tendencies to insist upon individual claims without regarding communal ones, to blame leaders and governments for everything, and to fly to precipitate action, are more or less evident everywhere. We have entered upon a period of transition of which no one can yet either appreciate all the issues or foresee the end; and our profession, like probably every other body, shows some unsteadiness in facing the new conditions.

On the whole, we have a better chance of holding our own in the coming struggle than many other callings. We have a firm legal status which is not likely to be weakened, while we may hope to strengthen it still further by judicious action. We are neither a mushroom industry developed under war conditions, nor a parasitic one dependent upon the luxuries of peace, but a profession with a long record of national service to prove our economic utility. Claims such as these, with good management on our part, should enable us to gain our just ends; while such errors as over-estimating our own strength and importance would be peculiarly dangerous in a profession so small as ours. The men whom we trust to guide our course today should be not only alert and energetic, but also prudent and level-headed; and we all know that the two sets of qualities are not always found in the same individual.

## FRACTURE OF THE NAVICULAR BONE.

Bérrar, in the *Deutsch Tierärztlich Wochenschrift* for 1913, discusses this subject. Fractures of the navicular bone are usually effected in the transverse direction and situated in the neighbourhood of the medial crest. There are predisposing causes, such as prolonged rest, neurectomy, etc.; while the exciting causes are concussions or traumatism. The certain diagnosis can only be established by means of the Röntgen rays; for acute navicular disease and arthritis of the foot present the same symptoms as fracture of the navicular bone. Prognosis is always unfavourable; and the lameness persists even in cases where the fracture is consolidated by a callus.

In twenty five horses destroyed on account of incurable affections of the organs situated in the interior of the hoof, Bérrar found, upon post-mortem examination, four fractures of the navicular bone.

The author advances interesting considerations concerning the genesis of these fractures, basing his arguments upon the function of the bone. The bone is compressed between the second phalanx and the perforans tendon; and all its interior structure is organised to support pressure. This structure resembles a collection of tubes or columns disposed perpendicularly to the two surfaces of pressure. The navicular bone is fixed at its two extremities by a rather complex ligamentous apparatus, and supported by the perforans tendon. Fractures supervene from excessive pressure transmitted by the second phalanx; and the perforans tendon, which is relaxed in certain positions of the limb, may not counteract such pressure sufficiently.—(*Annales de Médecine Vétérinaire*).

## ATOXYL IN THE TREATMENT OF MALIGNANT CATARRHAL FEVER.

Wysmann, in *Schweizer Archiv. für Tierheilkunde* for May 1918, reports in detail fourteen cases of malignant catarrhal fever which he has treated with atoxyl, and also mentions the result which he has previously obtained with the same drug in other cases. The results he has observed have not been uniform. In some cases the atoxyl showed a very rapid curative action; in others, however it produced no benefit.

It must not be forgotten that malignant catarrhal fever is capable of cure, even in grave cases, with other remedies. Wysmann, therefore, concludes by saying that atoxyl is not the ideal remedy in this disease, as its action is neither constant nor regular.—(*La Clinica Veterinaria*).

W. R. C.

# VICTORIA VETERINARY BENEVOLENT FUND (INCORPORATED)

The First meeting of the Council of the Fund since its incorporation was held at 10 Red Lion Square, London, W.C., on Thursday March 6th, 1919, when the following members were present:

Mr. S. H. Slocock (President), in the Chair, Mr. E. Whitley Baker, Mr. G. A. Banham, Sir J. M'Fadyean, Mr. J. W. McIntosh, Mr. E. Alfred West, Mr. J. Willett, Prof. G. H. Wooldridge, Mr. G. Thatcher, Solicitor, and Messrs. P. J. L. Kelland, and F. Bullock, Honorary Secretaries.

Apologies for absence were received from Messrs. Barrett, Bradley, Dawes, Dunstan, Price, Johnstone, Trigger, and Sir Stewart Stockman.

The Minutes of the previous meeting were taken as read and confirmed.

*Incorporation.* The Memorandum and Articles of Association were submitted, together with the certificate of Incorporation of which the following is a copy:—

No. 153010 Certificate of Incorporation. I hereby certify that the Victoria Veterinary Benevolent Fund (the word "Limited" being omitted by Licence of the Board of Trade) is this day Incorporated under the Companies Acts 1908 to 1917, and that the Company is Limited. Given under my hand at London, this sixth day of February, one thousand nine hundred and nineteen.

A. E. TAYLOR,

Assistant Registrar of Joint Stock Companies.  
Fees and Deed Stamps £22.

*Constitution of Council.* The Solicitor reported that in order to complete the preliminaries of incorporation as quickly as possible he had sent in the consents to act as Member of Council from such members as had replied in time, and their names had been registered. It was now necessary formally to co-opt the remaining members of Council whose consents to act had been received since the date of Incorporation. This was authorised under Article 20.

Mr. Banham thereupon proposed, Mr. West seconded, and it was unanimously carried, That the following be co-opted Members of Council: Messrs. E. Whitley Baker, F. W. Garnett, F. L. Gooch, J. Ewing Johnstone, J. McI. McCall, W. J. Mulvey, T. Salusbury Price, A. Spicer, R. C. Trigger and W. Jackson Young.

A further point was raised as to the interpretation of Clause 18 of the Articles, and it was resolved, That an extraordinary meeting of the Members be called for April 10th, to alter the Articles of Association, so as to provide that any Veterinary Medical Association or Society which contributes annually to the Fund a sum of not less than two guineas shall be entitled to nominate a member of Council.

*Secretaryship.* The President requested Mr. Bullock to withdraw during the consideration of this matter. In his absence the President said that in the new circumstances of the Fund as an Incorporated Association, it was in his opinion necessary that a paid official should be appointed. There were certain important duties to be performed under the provisions of the Companies Acts which involved a large increase in the Secretarial work. The books and records of the Fund had to be kept in strict accordance with the law, and annual returns were required to be made under considerable penalties. Mr. Bullock had joined Mr. Kelland as Honorary Secretary two years ago, and he could not speak too highly of the excellent work he had done for the Fund. The number of subscribers had greatly increased, and the amount paid out to recipients had also augmented. The provision of the Stephenson Bequest would also add considerably to the Secretary's

work. He felt that there was no one who was so competent to carry out the duties of the Secretaryship and to see that all the requirements of the law were duly satisfied as Mr. Bullock. He therefore proposed that Mr. Bullock should be elected Secretary to the Fund at a remuneration. He suggested that the amount should be fifty guineas per annum, to include all necessary payments for clerical assistance.

Mr. West seconded the proposition, stating that he associated himself with everything Mr. Slocock had said as to the excellent work Mr. Bullock had done for the Fund.

Sir John M'Fadyean supported the motion, and it was ultimately carried unanimously.

Mr. Bullock was then recalled and informed of the decision. In thanking the Council for the appointment, Mr. Bullock said that the work he had done had been done with pleasure, and that he would have been quite willing to continue it without remuneration, as it was a work undertaken for the benefit of the profession he had the honour to serve. Since, however, the Council wished that the office of secretary should be a paid appointment, and had fixed so generous a remuneration, he promised that in accepting the appointment nothing should be lacking on his part to carry out the duties conscientiously, and he hoped, with increasing success.

*Auditors.* The question of the appointment of Auditors was considered and the secretary was instructed to communicate with Messrs. Woodhouse and Wilkinson, the present Honorary Auditors, to ascertain whether they were willing to offer themselves for re-election and on what terms.

*Appointment of Bankers.* Mr. West proposed, Mr. Banham seconded, and it was resolved "that Barclays Bank Ltd. be appointed the bankers of the Fund, and that they be authorised to honour all cheques signed on behalf of the fund by the President, Treasurer and Secretary."

*Common Seal.* A specimen of the Common Seal was submitted and on the motion of Sir J. M'Fadyean, seconded by Mr. Willett it was unanimously approved.

It was ordered that the Seal be duly affixed to the contract for the purchase of War Loan from the Stephenson Bequest, and also to the necessary transfers of the Invested Funds from the names of the Trustees into that of the Fund.

*Clement Stephenson Bequest.* The question of the management of the Clement Stephenson Fund was raised, and the Solicitor read the terms of the Bequest as follows:—

"The annual income is to be kept separate and distinct from the ordinary income of the Institution and is to be called the "Clement Stephenson Fund," from which the Council of the Fund is empowered to grant relief either in the form of gratuities or fixed periodical allowances to necessitous and deserving widows or families of duly qualified Veterinary Surgeons in the United Kingdom."

The Solicitor pointed out that no provision seemed to be made for any expense of administration to be charged to the Stephenson Fund, and that no grant could be paid to a necessitous member out of that Fund.

It was thereupon decided that all expenses of administration be charged to the general Fund, and that any question of allocating certain of the present grants from the Stephenson Fund be deferred for the time being.

*First General Meeting.* It was resolved on the proposition of Sir J. M'Fadyean, seconded by Mr. McIntosh, that the first General Meeting of the Fund in accordance with the Articles of Association be held on April 10th, at 6 p.m.

*Annual Report.* The Secretaries submitted a draft of the Annual Report, which was duly approved for issue to the Members of the Fund before the Annual Meeting.



*Relief.* A further application was received from Mrs. B. Y., for a grant towards the balance of the cost of her son's equipment as a cadet in the mercantile marine. It was resolved—That a grant of fifteen guineas be made to Mrs. B. Y., from the Clement Stephenson Fund, being the balance required to complete the cost of her son's outfit.

## VETERINARY MEDICAL ASSOCIATION OF IRELAND.

[NATIONAL V.M.A.—IRISH BRANCH.]

A general meeting was held on Friday Nov. 29th, in the Gresham Hotel, Dublin. Prof. J. J. O'Connor, President, occupied the chair and other members present were;—Messrs. Healy, Wilkinson, J. Doyle, W. W. Malone, F. C. Mason, L. M. Magee, Knight, C. M. Griffin, J. H. Norris, J. B. Dunlop, Capt. Winter, and Profs. Craig and Browne.

Apologies were received from:—Messrs. Prentice, Kerr, Mahony, Howard and Holland.

The minutes of the previous meeting which had been circulated were taken as read and signed.

*Correspondence.* The following correspondence was read:—Veterinary Officers V.M.A. and North of Ireland V.M.A.

### REPORT OF COUNCIL. 29th Nov.

A special meeting of Council was held on 13th June 1918 to consider the advisability of opening a subscription list for Mrs. Mettam. After some discussion it was decided to defer action in the matter and that Mr. Watson and Prof. O'Connor should interview a Government Official re a Government Grant.

A meeting of Council was held on the 25th of July 1918, at which it was decided to abandon the general meeting in August for this year.

A meeting of Council was held on the 12th November 1918 at which it was announced that Mr. C. A. Ewing had won the medal awarded to the student gaining the highest aggregate of marks in his Final professional examination, held in the Veterinary College in July 1918. It was directed that two medals be struck and one awarded to this student.

Printing account was passed for payment.

It was directed that the question of defraying part of the expenses of Mr. Howard incurred in attending the Council of the Royal College of Veterinary Surgeons be brought up at the general meeting. In the meantime the various V.M.A. to be again written to for a definite reply to the letters sent them in the earlier part of the year.

The general meeting to be held in the Gresham Hotel at 7 p. m. on the 29th of November, Paper on "Notes on Clinical cases" by Mr. Magee to be printed and circulated with the notices convening the meeting. Reporter to be employed.

Mr. NORRIS proposed, Mr. Wilkinson seconded and it was passed that if notes of the speakers at the general meeting, sent them for revision be not returned within 14 days, the original notes be sent on to the printers for publication.

Prof. CRAIG announced that the Solicitors to the late Mr. Jas. McKenny had written him that the Grant of Administration had been mislaid. Till this is produced nothing could be done with regard to the transfer of Trusteeship.

The CHAIRMAN: Gentlemen—you have learned from the Report of the Council that Mr. Watson and myself were deputed to interview some representatives of the Government to ascertain whether their would be any objection to our approaching Irish M.P. with a view to obtaining their influence in furthering the petition to

the Lords of His Majesty's Treasury for a Civil List pension for Mrs. Mettam. Prior to going holiday in August I tried twice to get Mr. Watson to accompany me but he was so busy he was not able to come. During my absence Prof. Craig, having learned that there would be no objection to such a course of action, made arrangements to have some M.P. including Sir E. Carson, Mr. Devlin, and others interviewed on the matter. Under these circumstances I trust I will be excused for not having the wishes of the Council officially carried out.

Prof. CRAIG gave some information regarding the steps he had taken to interest some prominent Members of Parliament and others in the petition.

The CHAIRMAN: We have now to deal with Mr. Howard's expenses, incurred in travelling to London to attend the Council meetings of the Royal College of Veterinary Surgeons. You know that Mr. Howard has represented the Veterinary Profession in Ireland on the Council for some years.

He went forward as a candidate at the request of the members of this Association—not on his own initiative. He demurred about accepting the honour because he thought the expense would be rather too much for him, but we said we would subscribe towards his expenses, and would not allow him to be too much out of pocket in the matter. Several years have passed now, and we have done nothing towards fulfilling this promise. Mr. Howard has attended most of the meetings during the war-time when the cost of travelling has been enormously increased. On more than one occasion he has expressed his willingness to retire in favour of some other member. When his first term of office expired he was not anxious to go forward again, but our association pressed him to do so, and nominated him for re-election, and he was successful at the poll. I doubt if there is another man in Ireland who would undertake the responsibility of this position, which undoubtedly entails great loss of time and great monetary expenditure, but Mr. Howard is very enthusiastic in veterinary matters, as we have had recent proof of in connection with the grievances of the Veterinary Inspectors. You know he was the first to take up their case and fight it without any prospect of self interest—but on the contrary, with a possible risk of injuring his own interests. It must be understood that we are not conferring any favour on Mr. Howard by contributing towards defraying his expenses; we are only discharging, in a rather belated fashion a debt of honour, and showing some appreciation of his able services on the Council. We should congratulate ourselves on having a man like Mr. Howard who is so popular across the Channel that he can command success at the poll.

We ought not to lose any more time in dealing with the matter.

Mr. NORRIS: I think this question of Mr. Howard's expenses is primarily a matter for this Association, but the other Associations in Ireland have also an interest in it, and we have been endeavouring for some time past to get them to take a practical interest in it. We have heard the letters read from two of the Associations but there is nothing definite in them. I think the only thing we can do to-night is to postpone the matter until we hear definitely from these Associations what they are going to do. In suggesting that, I don't mean that the matter should be allowed to drift very much longer.

Capt. WINTER: Mr. President—as secretary of one of these associations I owe you an apology. The first I heard of this matter was last Monday, as your letters did not reach me when I was away. I immediately got into communication with Mr. Healy and Mr. Mahony. Mr. Mahony unfortunately could not be here to-night, but he is quite willing to stand by anything we do. Our association has not much money, but I think we can get some together. We should not postpone this thing

altogether. We should have a discussion as to what Mr. Howard's probable expenses were and what this Association can do; then we will see what we can do.

The CHAIRMAN: Capt. Winter need not apologise for we do not communicate officially with the Central Association on the subject, knowing that they were willing to subscribe.

Mr. DUNLOP: This matter has come up so often that I think we should decide something now. The question is, is this Association prepared to vote a certain sum or are we as individuals to subscribe?

Prof. CRAIG: I agree with Capt. Winter that this matter should be threshed out now. During the present year it was decided that a contribution should be made to the expenses incurred by Mr. Howard, and it was decided that from the funds of the Association a sum of £10 should be contributed, and that the rest of the money should be obtained partly from the other Associations and partly from the members. Up to the present the members of the other Associations have not come forward, therefore I think we will have to depend on members of this Association to contribute towards the fund. So far as the funds of this Association are concerned by the end of this year we will have exceeded our income by about £30, if we include the £10 contribution to the expenses of Mr. Howard. I would propose that a subscription of 10/- be asked from the various members.

Mr. HEALY: I think if any member of our profession deserves credit it is Mr. Howard. He has done his duty like a man, and I think it behoves every member of the Association to assist in covering his expenses. We have in our small Association the sum of £8 which we will give over to the fund, but I think outside that every member of the profession in Ireland should give a subscription. I hope the voice of this meeting will go forth to the profession in the country, and that they will assist in every way they possibly can.

On the motion of Mr. KNIGHT, seconded by Capt. Winter the following resolution was passed:—"That the members of this Association, also the members of the profession in Ireland, be asked to subscribe a sum of 10/6 towards the expenses incurred by Mr. Howard, of Ennis, as the Irish representative on the council of the Royal College of Veterinary Surgeons; since Mr. Howard only consented to act on the council when a promise was given that a contribution would be made towards his expenses."

Mr. MAGEE: At the last Council meeting we calculated that Mr. Howard's out of pocket expenses alone during the year would come to about £60 for travelling to London, but that does not represent what his full expenses amounted to.

Mr. HEALY: Put us down for £10 from the Central Association.

A number of subscriptions were then handed in.

#### CLINICAL CASES.

By L. M. MAGEE.

(The paper had been printed and circulated to members.)

For the shortcomings of this paper I shall try to console myself with the thought that our President, Professor O'Connor, is, to a certain extent, responsible. He gave me only a few days' notice to get it ready, and as I am slow with the pen I must shift some of the blame on to his shoulders.

The subject which I have chosen is always a popular one at veterinary medical meetings, and probably appeals to members more than any other. Accounts of unusual and interesting cases are expected, and a discussion on several subjects generally follows, from which information and knowledge are often gained.

#### AMPUTATION OF UTERUS—SOW.

While away from home a telephone message came to attend a sow about twelve miles away. As it was late when I returned—and the message did not say that the case was urgent—I put off the visit till next morning. The owner, who was a poor woman, informed me that the sow had given birth to six live young the morning before, and shortly afterwards had put out the whole of her pig-bed. Attempts to return it had failed. The patient lay prostrate and objected to getting up, but she was not blowing. Her ears and legs were rather cold, and she refused her food. It required but a short examination to decide that the return of the uterus was out of the question, as it was dry, stiff and filthy, and that the only chance of saving the sow's life was to amputate the organ.

On hearing this the owner seemed very pleased, and informed me that the night before, when some of her neighbours were in trying to "give her a hand," she told them that when the vet. came he would probably cut it off; but they only laughed at her. She, therefore, told me to "fire away." Having sterilised a scapel and a few strips of calico by boiling, I tied the sow's four legs together with a rope. The uterus was now pulled out as far as possible, and a strong calico ligature tied very tightly around the neck, close to the vulva. To make sure, another was applied in front of this, and the organ was amputated about an inch behind the ligatures. The raw stump was then seared with a red-hot poker before allowing it to slip back into the vagina, and the sow was released. She stood the operation well. A few weeks afterwards I received a letter from the poor woman, in which she said: "Half an hour after you left she took to her food, and being carefully fed, both herself and buns are in excellent health."

Some of the members may remember that about ten years ago, in a paper which I read before the Association, among other cases I recorded a successful one of the same kind which I had with a cow. I have also had failures with the operation, but I hope to refer to these in the course of the discussion, and to some pitfalls to be avoided.

Where the return of the uterus is not possible, and where there is a reasonable chance of success, unless the animal is fat, I think we should never hesitate to perform amputation.

#### INTUSSUSCEPTION

Three years ago I attended a valuable greyhound puppy, nine months old, apparently suffering from acute constipation. He showed no signs of pain, and there was no straining. A dose of castor oil was administered, and frequent enemas of warm soap solution. He was no better next day, and had developed very pronounced jaundice. He was now put on to medicinal paraffin, and the enemas were continued. No improvement occurred, and he died two days later. A *post-mortem* showed that the cause of death was intussusception of the small intestine, and I produce the specimen for inspection.

Last year one of the Ward Union Stag Hunt pups was sent to me suffering from jaundice. He looked miserable; did not seem to be in pain; did not strain, and there was constipation. I associated the jaundice with distemper. Forgetting my previous experience, and not suspecting intussusception, I did not examine the abdomen, and treated the pup on the same lines as the former case. He only lingered for a few days, a *post-mortem* revealed another splendid specimen of invagination of the small bowel, which I also present.

Of six authors whom I have consulted, Hobday is the only one who mentions jaundice as a possible symptom of the condition.

When my friend, Mr. Heney, who has a large dog practice, was once down with me in consultation, I showed him these two specimens, and told him the histories of the cases. He was very interested, and said he had had several fatal cases of jaundice in young dogs, but, like myself, never suspected intussusception. Possibly it may be a commoner cause of jaundice than we think, especially in young dogs.

#### "DOPED."

I had often heard stories of broken-winded horses being "set" by gipsies and low-class horse dealers so that they defied detection at sale, and sometimes remained apparently sound for some days after purchase. But I really didn't believe that the practice commonly known amongst the fraternity as "setting a piper" was possible so that a veterinary surgeon could be deceived. In the summer of 1915 I had a painful awakening to the fact that I was wrong.

My brother-in-law was buying for the Army, and whenever I saw a horse likely to suit him I let him know. A few miles from Dunboyne there is a famous common known as the Moor of Meath, which is frequented by so-called gipsies and tinkers, who deal in screw-horses, donkeys, poultry, etc. I don't think, however, that I have ever seen a genuine gipsy amongst them. While driving across the moor one afternoon I noticed a caravan halted close to the road and three or four horses grazing about a quarter of a mile away. Thinking that possibly there might be a good one amongst them I got out and walked across, but found that they were all screws. As I came back to the road I saw the owner of the caravan coming towards me from the other side of the moor. He was a low-sized, butty man, with a face that was not prepossessing. With a pronounced cockney accent he asked me if I wanted a horse. Having told him what I was looking for, he pointed to a mare that was grazing away at the end of the moor which, he was sure, would suit, and if I was returning that way he would have her ready for me. Saying that I would be back in about an hour, I went on to my case.

On my return he had the mare on the road. She was a nice, six year old bay mare, and having walked and jogged her I thought she looked like making a "gunner." I told him I would telephone to my brother-in-law when I got home, and if possible he would see her that afternoon. A few hours afterwards we motored out and bought the mare for £30, subject to my passing her sound next morning; the light was failing at the time. The following morning the mare was at my yard at the appointed hour, and I examined her carefully. Needless to say, I paid particular attention to her wind, but could notice nothing abnormal, except that after her gallop, which was a very severe one, she continued to breathe somewhat faster than usual for about an hour. To make sure that I was not being "had" I auscultated her lungs, coughed her, gave her hay and water, both of which she took, but still I could detect no unsoundness. I did not, however, examine her pupils.

My brother-in-law came out in the afternoon, and I told him that in my opinion she was sound. He had said to me the night before that she looked too good a mare for such a man to have. Having pulled her out again, and carefully looked over her, he told me that he believed she was "set." I stuck to my opinion, and said I had applied every test I knew, and could detect nothing wrong. Although he still "haed his doots" he took my advice, and paid for her. She was left with me for the night, and was to be sent on to Dublin next day. When I went out to her next morning she was the worst case of broken wind I have ever seen—her nostrils dilating and her sides going "bellows to mend." I forget exactly what my feelings were at the moment,

but I remember that my sorrow was lessened by the thought that my client was a relation.

Having communicated the sad news by telephone, my brother-in-law told me to do the best I could, and, if possible, to return the mare to the gipsy at a loss. I immediately advanced towards the moor, expecting to find that the enemy had broken up camp and retreated; but to my surprise I met him on the road driving in as gay as a lark. He was surprised to hear about the mare. Of course, he never doped her; he wouldn't know how; all she got that morning was a flour drink; she was always a good, sound mare. To make a long story short, he took her back and returned £20.

As regards the composition of the dope used for "setting pipers," I have heard, amongst other things, of doses of shot and fat. Hutyra and Marek say that temporary relief is often brought about by horse dealers by the internal administration of leaves, roots or seeds of plants containing atropine (*Atropa belladonna*, *Datura stramonium*, *Hyoscyamus niger*), and that experiments made in the Budapest clinic have shown that these plants do not merely reduce the frequency of respiration, but also abolish the double period and the forced character of the respirations, so that it may appear perfectly normal even in advanced cases. The effect is produced in fifteen minutes, and lasts a whole day.

It is only fair to mention that although my gipsy friend spoke with a cockney accent, I learned later that he answered to the distinctly Hibernian name of O'Gorman; so I don't know whether I have another grievance against the Saxon, or whether I was let down by one of my own.

#### RECTAL CONCRETIONS

Newly-born foals sometimes suffer from acute constipation due to the presence in the rectum of very hard, thick bars of dark-coloured meconium—mostly concentrated bile—which are actually too large to pass through the ring of the pelvis. By passing the finger into the rectum the end of the mass can be felt at the inlet of the pelvis. It can be pushed back, and when the foal forces, it returns to the same position; but it cannot come through.

In my experience repeated injections of warm soap solution and oil or the use of a spoon always fail to evacuate the bowel. I have found that by employing Hobday's bitch forceps, one of which is on the table, one can usually give relief in a very short time.

I first give a good injection of an emulsion of warm soap solution and oil, and finally one of oil alone. It will also help matters if, while the enemas are being given, the foal's hind feet are held in the air so as to raise the hind-quarters. This allows the oil to gravitate down the bowel and lubricate the contents. The closed forceps is then passed up the rectum till it meets the obstruction, when it is slowly opened as wide as possible and gently pushed forward till the handles touch the anus, and it is closed sufficiently to firmly grasp the mass. It is now slowly withdrawn, which sometimes requires some force, and the dung removed from the jaws. The process is repeated till the obstruction is completely removed, and another injection is generally followed by the passage of normal soft, yellow faeces.

What one naturally dreads is grasping the bowel between the jaws of the forceps and the obstruction, but, as well as I could judge, this has never happened; the shape of the forceps seems to prevent it.

Since adopting this treatment I have had eight of these cases, all of which recovered, and in which I consider the use of the forceps was the principal factor. If treated on any other lines I believe these foals would have succumbed, at least in my hands.

## UNDIAGNOSED : UNCERTIFIED.

Every veterinary surgeon, unless he wilfully blinds himself, sooner or later meets cases which he is unable to diagnose. Personally, I must confess that during the past sixteen years I have met many such. Of these the two which I am about to report are probably the most mysterious, and I am very anxious that members will give me their opinions, and possibly solve what I believe to be a very difficult problem. The account will, I fear, be a rather long one, as I wish to mention everything which can possibly assist in making a diagnosis, and there may, consequently, appear to be much unnecessary detail.

The time was the month of October, 1916. The subjects were "West Indian," a three year old thoroughbred bay gelding, and "Rodney Stone," a five year old thoroughbred chestnut gelding.

*History:* West Indian had been in training till the previous June, when he was noticed not to be well and was sent home for a rest. The weather being very warm, he was turned out to grass at night, and brought in during the day, when he received a feed of bruised oats and chopped hay.

Rodney Stone became his companion in August, and received the same treatment. They were the only two horses in the paddock, along with some cattle.

On October 21st both horses were brought in as usual at seven o'clock in the morning, each looking in perfect health. About eleven o'clock the stud groom heard West Indian "kicking up a shindy" in his box, and on opening the door found the colt stretched prostrate on his side, sweating all over and pawing occasionally. Thinking it was a case of colic, he administered a draught, and as there was no improvement after an hour he gave another. This not having the desired effect, he wired for me. I was away on another case at the time, but the message was sent on to me by telephone, and without returning home I went straight to the place.

I found the colt standing, looking very distressed, sweating profusely, and disinclined to move. All extremities were cold, the membranes injected, the artery corded, and the pulse barely perceptible. No peristaltic sounds could be heard at the flank; he was not blowing, but he sighed at each respiration, and pawed now and then. At times he threw himself down and lay prostrate for ten minutes or so, but he never rolled. The temperature was sub-normal, 98.3 degrees. He had passed dung normal in quantity and appearance, but had not staled from the time he came in. On examination per rectum, the bladder was found to be considerably distended, and as I had not a catheter with me I tried to empty it by pressure, but failed. Although extending my hand as far as possible into the abdominal cavity, I could not feel the pelvic flexure of the large bowel or any of the other intestines; it seemed as if they were drawn out of their usual positions. I expressed the opinion that it was probably a case of twist of the large intestine, and I considered it hopeless. However, I tried to administer a pint of linseed oil and two ounces of turpentine; but he resisted so much that we had to abandon the attempt. He got about half of the draught. I ordered him to be well sheeted and bandaged.

I went home for the catheter, etc. On my return, in about three hours' time, I found, to my surprise, that the pulse was much improved. Sweating had ceased, the bowels rumbling, and the temperature almost normal. I began to hope that my diagnosis and prognosis were wrong. The bladder was now enormously distended, and the passage of the catheter brought away a great quantity of urine, dark in colour, just like porter. I now believed I was dealing with an unusual case of acute azoturia. This was about the last thing I expected, as the usual history associated with this disease was altogether absent, and the life the colt had led seemed most unlikely to bring on such an attack.

As the patient was lying I administered a pint and a half of linseed oil and three ounces of turpentine, and gave a hypodermic injection of one grain of arecoline and half a grain of pilocarpine.

Strange to say, the latter had not the slightest effect, either as regards salivation or increased peristalsis. A week before I gave the same dose to a heavy draught horse suffering from stoppage, and he ran pints of saliva, and had three motions within one hour. The colt was also given an injection of several gallons of warm soap solution, and before leaving I ordered it to be repeated every two hours.

I again visited late that night, but the improvement was not maintained, and I gave no hope of recovery. On returning next morning I received the unpleasant news that one was gone and the other was now bad. This was Rodney Stone, West Indian's companion. He was found stretched in the paddock that morning, and affected in just the same way as his pal. He was brought in and was well clothed and bandaged. On examination I found the symptoms almost identical to those of the colt. The temperature was 98.4 degrees, and the passage of the catheter brought away porter-coloured urine, which left no doubt as to the nature of the two cases being similar. The pulse being too weak to administer arecoline or eserine, I gave a five-dram physic ball, and had rugs wrung out of hot water frequently laid across his loins. In view of the death of the colt, I said the betting was a hundred to one against him.

I then proceeded to make a *post-mortem* on West Indian, but beyond porter-like urine in the bladder, and a moist, tar-like appearance of the spleen on section, there was nothing abnormal, as far as I could see.

Rodney Stone's attack took a similar course to that of his companion, and he died early the following morning. The *post-mortem* was a repetition of the other, except that the spleen was normal.

The owner, who was in England, wired that every investigation should be made. My report on the two cases, and the viscera, including the stomachs and contents, were sent to the late Professor Mettam; but he considered it was a case for an analyst, and had them sent to Professor Ebrill, of the National University. Finally, Professor Ebrill reported that there was no evidence of malicious poisoning, and that in his opinion it was a case of either bacterial infection or fungus poisoning. Various extracts of the visceral contents were given to animals, but in no case could new information be obtained, though the animals were kept under close observation.

Subsequently, Professor Ebrill, in company with Mr. Doyle, Assistant Professor of Botany at the University, visited the stud farm, and inspected the paddock in which the two horses grazed. There was a portion of the paddock which was a recent addition, and the stud groom mentioned that this had been infested with fungus-growth, and even as late as their visit (which was in November) a few specimens were found by them.

These were analysed, but results were negative, and extracts of these given to animals produced no toxic symptoms, and in no case caused death. But in view of the fact that there was no chemical poisoning, and the symptoms corresponded closely to those of muscardial poisoning, they inclined to the latter view.

I may mention that the owner is an excellent employer, and very popular in the district. Probably there is no better managed stud farm in Ireland, and the stud groom is one of the best men of his class I have met.

In conclusion, I do not believe that horses fed on good grass, hay, and oats would eat mushrooms, poisonous or otherwise. Personally, I do not believe in the muscardial poisoning hypothesis, though I must confess I have no alternative theory to offer.

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919 :—

	Mar. 11.
T. F. Arnold, Capt. R.A.V.C. (1918-19)	£2 2 0
J. W. Baxter, London, S.W.1	1 1 0
H. G. Bowes, Lt.-Col., RAVC.	1 1 0
A. Broad, London, W.	1 1 0
W. L. Cockburn, Liverpool	1 1 0
A. D. Lalor, Sleaford, Lincs.	1 1 0
W. E. Litt, Shrewsbury	1 1 0
R. Moore, Treorchy	1 1 0
Previously acknowledged	657 19 0
	£667 8 0

## FEES !

Sir,—With reference to the arrangements now being made to raise our fees, is it not all rather futile unless it is controlled by the National Society under the Council R.C.V.S. At present chaos exists—The Derbyshire Society enterprisingly draw up a minimum scale of fees; and subsequently the Royal Counties Society draw up another differing in various points, and also add 25% to these fees!

One finds that in a small radius V.S. are all charging differently—the one following the suggested scale unfortunately being exceptional, although it is obvious that lower fees are quite inadequate, if not unprofessional!

Until the question is taken up and controlled, I fail to see what can be done, as local authorities still continue to fix their own allowances, and if one protests—as I have done, against making important inspections and microscopic exams: and reports on contagious diseases for a fee of 5/-: it is in vain.

Personally, I fail to see why a complete fixed scale cannot be drawn up, as is done in the case of Solicitors, advertised in the Agricultural and other papers, and local authorities so notified, and except in exceptional circumstances, if these fees are not charged one should be liable to be reported to Council R.C.V.S. and dealt with accordingly.

Take the operation of castration; how can one possibly travel, say, five miles (often more) on two successive days, perform a responsible operation in the standing position for a fee of less than one guinea? Yet 10/6 is quite usually charged; and if one attempted to charge more than 15/- he would not be required very frequently, as Members are, I fear, not likely to charge more than 15/- at the most in the majority of districts!

Personally I am charging more than most of my neighbours, considerably; and yet I am somewhat under the Royal Counties scale in some cases: but I am quite prepared to risk losing clients rather than accept unremunerative and humiliating fees. In the case of local authorities one's hands are tied, as one cannot refuse an Inspectorship in one's own district.

I think Major Taylor got at the crux of the problem when he raised the point of the whole matter being controlled by the Council. I regret I cannot give my name, in case of being considered personal, but I am forced to mention facts actually existing. Before the war one could carry on, but in the present revolutionised times, with prices 50% to 100% raised, it is high time that the Profession as a whole moved, otherwise those holding out for fair and proper fees are in a somewhat unenviable position. It is also important for the future of the Profession—inability to give proper education to one's family will not help the already doubtful status held by the Veterinary Surgeon!—Yours etc.,

“WORRIED”

## QUACK MEDICINES AT SHOWS.

Sir,—Several questions occur to me on reading the report of that meeting at Derby in your current issue.

Did the meeting ever seriously consider the possibility that the Agricultural Societies, when forced to lose either the rents they receive from medicine vendors for their stall, or the no longer honorary services of veterinary surgeons, may decide to lose the latter? If they do so decide, what will the veterinary surgeons do then? Will they resign as they threaten, and risk permanent non-recognition at agricultural shows; or will they shift their ground, and practically own themselves to have been merely bluffing? And, whichever of these two courses they take, what will be the result for the profession? It seems to me that these Derbyshire practitioners are proposing a step, the consequences of which may be very different from those which they expect.—Yours truly,

“SCEPTIC”

## ARMY VETERINARY SERVICE

Mar. 8.

The Secretary of the War Office announces, by direction of the Secretary of State for War, that the Cavalry Regiments and Infantry Battalions comprised in the Army of the Rhine are as follows:—

\* \* \* \*

Mobile Vety. Sect., 13; Veterinary Hospitals, 3; R.A.V.C. Bact. Laboratory, 1; Vet. Evac. Station 5; Base Depôt of Vety. Stores.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Mar. 5.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. H. G. Bowes, F.R.C.V.S., relinquishes the actg. rank of Lt.-Col. (Feb. 8).

Capt. C. Drabble, (T.F.) relinquishes the actg. rank of Maj. on ceasing to comd. a Vety. Hosp. (Feb. 24).

Capt. and Bt. Maj. G. E. Tillyard to be actg. Maj. whilst comdg. a Vety. Hosp. (Feb. 24).

Temp. Capt. E. S. Dixon relinquishes his commn. on account of ill-health contracted on active service (March 6), and retains the rank of Capt.

Temp. Lt. to be temp. Capt.:—W. Walsh (Feb. 1); D. G. Wishart (Feb. 8); G. F. Banham (Feb. 10); W. L. Marshall (Feb. 18).

Mar. 6.

Temp. Capt. S. J. Motton, F.R.C.V.S., relinquishes his commn. on account of ill-health (March 7), and retains the rank of Capt.

Temp. Lt. W. W. Kerr to be temp. Capt. (Nov. 24, 1918).

Mar. 7.

Col. and Hon. Maj.-Gen. L. J. Blenkinsop, D.S.O., to be Maj.-Gen. (April 24, 1918), with seniority from Dec. 1, 1917 (substituted for notification in *Gazette* July 5, 1918).

Col. and Hon. Maj.-Gen. (temp. Brig.-Gen.) J. Moore, C.B., F.R.C.V.S., to be Maj.-Gen. (April 24, 1918), with seniority from Jan. 1, 1918.

Mar. 10.

Temp. Capt. T. H. Tranter relinquishes his commn. on account of ill-health (March 11), and retains the rank of Capt.

Temp. Lt. M. G. Connolly to be temp. Capt. (Feb. 19).

Mar. 8.

## OVERSEA FORCES.—CANADA.

No. 100823 Sgt. T. H. Hungerford to be temp. Capt. (Aug. 6, 1918) (substituted for *Gazette* notification Aug. 20, 1918, incorrectly specifying the promotion of this Officer as temp. Lt.)

## TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Mar. 5.

Capt. G. Dunlop-Martin relinquishes his commn. on acct. of ill-health contracted on active service (Mar. 6), and retains rank of Capt.

Mar. 11.

Capt. P. S. Thierry relinquishes his commn. on acct. of ill-health contracted on active service (March 12), and retains the rank of Capt.

## Personal.

FACER : HOLDING.—On the 22nd Feb. (by licence), at Christ Church, Luton, by Revd. W. Morgan, Capt. J. Facer, R.A.V.C., Luton, to Blanche (Peggie), daughter of Revd. W. Holding, formerly for many years Vicar of Moulton, Northants.

## OBITUARY.

ERNEST SEGER, M.R.C.V.S. Bolton, Lancs.

Graduated Edin: May, 1897.

KENNETH PHIN RANKIN, M.R.C.V.S., D.V.H., Board of Agriculture and Fisheries.

Graduated New Edin: May, 1904.

Mr. Rankin died at Plymouth on 7th March, from pneumonia. Aged 39.

GIRLING.—On the 1st March, at 48 Casualty Clearing Station, of broncho-pneumonia, after service throughout the war, Captain Theodore Augustus Girling, Canadian Army Veterinary Corps, of Saskatoon, sixth son of the late Revd. W. H. Girling and Mrs. Girling, of Lindley, Huddersfield, aged 42. Mentioned in dispatches.

FOREMAN.—On the 5th inst., Cecilia, wife of R. J. Foreman, M.R.C.V.S., High Cross, Tottenham.

## Another injustice to the Profession.

Description of the Crown Prince, taken from the new Almanach de Gotha (*Times*, March 12).

Prince William Victor August Ernest of Prussia, *ci-devant* Imperial Prince of the German Empire, Prince Royal of Prussia, Imperial Royal Highness, born at the Marble Palace, near Potsdam, on May 6th, 1882. Renounced his rights and succession to the Throne November 8th (December 1), 1918. Doctor in Law, University of Berlin; Doctor in Engineering, Polytechnic Schools, Berlin and Charlottenburg; Doctor in Veterinary Medicine, Higher Veterinary School, Berlin; formerly General of Infantry, etc.

## Louping Ill.

Several investigations have recently been carried out on this disease in sheep, but little progress. "In the last number of the *Journal of Comparative Pathology and Therapeutics* Sir Stewart Stockman, of the Board of Agriculture and Fisheries, discusses the rôle played by ticks in the production of louping ill. Particulars are given of 101 experiments conducted by the Board with a view of throwing light upon the cause, nature, and course of the disease. Sir S. Stockman is not inclined to think that the complaint in sheep has any close relationship to poliomyelitis in human beings. The disease is definitely tick-borne, and the infecting agent is not a toxin. It is transmitted by larval ticks (*Ixodius ricinus*) from females which have been feeding on the blood of infected sheep. It was also produced by adult ticks which had been fed as nymphs on infected animals and by inoculation of gland juice and blood from such animals. Arrangements are being made to test the practical value of protective inoculation in the case of adult sheep brought on to farms for the purpose of restocking, as well as in lambs born on the farms. The eradication of the tick suggests itself as one way of preventing the disease, and an intensive study of the life-history of the parasite is obviously a preliminary to the framing of an appropriate campaign."—*The Lancet*

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange. ‡		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaugh-tered.*
	Dogs	Other Animals											
			(a)		(a)		(b)		(b)		(b)	(a)	
Gr. BRITAIN.													
Week ended March 8			3	4	1	2			151	300	14	25	8
Corresponding week in	1918		5	5					128	264	4	18	11
	1917		12	13			2	2	76	175	22	53	13
	1916		16	18					60	145	4	97	214
Total for 10 weeks, 1919	19	3	40	58	17	91	1	1	1705	3539	170	200	69
Corresponding period in	1918		68	77			5	24	1527	2960	177	142	49
	1917		139	166			7	11	827	1783	294	411	137
	1916		183	154	1	24	15	46	†834	†2103	136	791	2380

† The Parasitic Mange Order of 1911 was suspended from 6th August, 1914, to 19th March, 1915, inclusive

a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, March 11, 1919

† Counties affected, animals attacked :—

Excluding outbreaks in army horses.

NOTE.—The figures for the Current Year are approximate only.

\* As diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1602.

MARCH 22, 1919.

VOL. XXXI.

## VETERINARY EMPLOYMENT.

As the situation becomes clearer, we are beginning to be able to form some forecast of the developments of the near future. We can now see enough of some coming changes to consider their probable effect upon the profession.

The military proposals render it certain that our army will remain much larger than it was a few years back. This will have two effects upon us. More veterinary surgeons will be required for the army than in the old times; thus a field of veterinary work which for many years has been one of the most attractive to our young graduates, will be permanently expanded; and its conditions are more likely to improve than to deteriorate in the near future. This will mean a consequent reduction in the number of veterinary surgeons immediately available for civil life, with less danger of unemployment in that sphere.

The new responsibilities we are to undertake in non-European countries will operate in similar directions, though perhaps not to so great an extent. More veterinary surgeons will be wanted for overseas, with a corresponding decrease in the numbers left for home work.

In this country, two conflicting factors will be in action. Those branches of our work which arise from the luxuries of clients have been greatly diminished, and will not speedily regain their former importance. On the other hand, the economically important side of veterinary work will maintain the position into which it has now been brought, so far as private practice is concerned, while the veterinary public services will continue the steady progress they have made during the last generation. Again the reduced strength of the profession must be taken into account.

Broadly, there seems to be less danger of serious unemployment amongst us than in many other quarters. There must be some difficulties before the country settles down; but for the next few years it will probably be found that the supply of young graduates is falling below rather than exceeding the demand. This prospect was one of the reasons (and there were others) which justified the recent lenience of the Council with regard to some examination certificates. There is not likely to be any lack of veterinary work for a long time to come. There may be difficulty in obtaining an adequate reward for it; but so there is likely to be in most other fields of work.

## BACTERIAL INFECTION OF WOUNDS IN FRANCE.

In looking over a few old *Records* I have read with some interest two articles entitled "Bacterial infection of wounds in France." These articles are in the October and November issues and concern what is, in nearly all cases, a bite injury to commence with—practically every V. O. who has been in the army must be well acquainted with the condition.

I must say I was considerably surprised at the views expressed—my own, and the experience I have had of these lesions, being much at variance with what is described. A third contribution on the subject may therefore do no harm.

I have nothing to add as to origin. The frequency of these injuries here in France can only be attributed to the enforced idleness of animals standing on lines and unprotected from each other. Nearly all are caused by bites, and the location of the injury is almost always on the side of the neck in front of the shoulders.

As a result of this bite swelling develops. This swelling may be large or small, but usually it is full of fluid, fluctuating, and only skin deep. Sometimes there is considerable extravasation into the overlying skin, but commonly this is absent. More often than not there is no skin mark, or only some trifling abrasion, and incision in a fresh case (that is, of 24 hours or less) gives vent to a quantity of yellowish or reddish-yellow serous fluid containing deposited fibrinous matter. This, then, is the injury which constitutes the initial and starting point of the so-called "fibrous or bacterial" neck tumour.

Personally I have not witnessed the process of growth of one of these tumours, but have seen a fair number after they have been formed, and to my mind their growth can and should be avoided. In the first place, I have no hesitation in saying that primarily these "serous swellings" are not bacterial—and never should be, and that I cannot but regard the secondary unsightly fibroid callus as the result of either too timid treatment, or of treatment vastly over-zealous.

The tiny opening for syringing and drainage purposes which becomes choked and closed up between the times of dressing is about equal in its results to the curetting and packing method. Both effectually prevent adhesions and healing when the parts first vascularise or are about to do so, and both lead to an active and dense proliferation of the fascia lining the interior. With the best of intentions they effectively strangle Dame Nature in what I should term one of her best moods, and the

fibrous tumour with its unhealed centre is neither more nor less than a natural outcome of retardation of her healing effort.

I will give my reasons for so saying, and my theories, which are quite simple. To begin with, when a horse bites another one "on the side of the neck" he generally grabs and "hangs on"—you hear his teeth snap as the victim springs clear and frees the pinched-up skin—*skin only*, be it remembered—at this region. What has happened? Injury and tearing of the delicate areolar tissue connecting the skin to the flesh, bruising and sometimes laceration of minute blood vessels, especially veins. The lymphatics too should not be forgotten. Later there is natural inflammation of the injured part, natural effusion into the torn areolar spaces, and consequent separation of skin from the underlying muscle. The size of swelling will vary with the extent of the injury, the most important factors being, I think, the amount of torn or separated areolar space, and the bruising or thrombosing of return vessels. A subcutaneous fluid swelling is the result. This is of small size, usually disappears in a few days if left alone, but larger ones on the contrary tend to increase slowly but none the less surely, and may, as one of the writers observes, reach surprising proportions if not operated upon.

One has often asked oneself the question "Why does this fluid not absorb?" I am inclined to think that damaged venous or lymphatic return vessels offer the chief explanation of the phenomenon, in addition, the skin attachment of the area here involved is loose in character, and separation being once started further separation will proceed most readily. Movement is free and frequent, and some pumping action doubtless occurs, especially with the neck movements towards the uninjured side. No doubt, too, lymphic deposit on the inner surfaces of the cavity plays quite a part in hindering absorption and aiding the process of tumour enlargement. Be that as it may, what we get is a large and increasing swelling. Our aim and purpose is to get rid of this in the speediest possible way.

#### TREATMENT.

Perhaps I have theorised a little unnecessarily in the preceding paragraphs, but I thought it essential to the proper understanding of my ideas and the methods I have followed. We have a fluid subcutaneous swelling bounded on the one side by the firm musculature with its covering of fascia, on the other side by the inner skin surface, also smooth, dense, and clothed with fascia. The skin is intact, the contents aseptic.

If the swelling be small, leave it alone. As before said, it will absorb in a few days. But if it be of a larger size and not likely to disappear naturally within a reasonable time, open it. Nothing is to be gained—rather the reverse, by waiting for the swelling to become large, with further loss of valuable skin attachment. Swab the part with Iodine and make a free incision; as a general rule from the centre of the swelling to its lowest point. Now press the skin flat down and remove any extruding

fibrinous deposit, but on no account explore the wound in search for more. It is still aseptic; leave it so.

The animal should be placed by himself, or along with quiet neighbours, and twice daily the skin on each side of and above the wound is gently pressed flat down and the lips swabbed with Tr. Iodine—the first to ensure that no discharge or fluid is by chance being retained; the second to delay or hinder outside infection. Plugging, syringing, or bathing is strictly tabooed, the area being kept as nearly as may be immobile—that is—left alone. The only real essentials to success may be summarised now. They are:—

1. That the preliminary incision or incisions be so placed, and of such extent, that until the wound is dry and has ceased discharging, no fluid or discharge can at any time be retained.

2. That the interior of the wound be not disturbed.

Further than these, nothing really matters.

One must remember in dealing with these cases, that both sides of the wound cavity are, to commence with, smooth and coated with fascia; blood and capillary vessels are lacking, and, compared with the usual flesh wound, conditions for natural healing are in consequence not so satisfactory. This disadvantage, however, is only temporary, the surfaces rapidly vascularise, and, providing the little attachments present, or forming, are left intact (and a few most valuable strands of tissue are nearly always there to begin with—if not thoughtlessly removed or broken down) healing follows on normal lines. Also, in our favour in dealing with these subcutaneous wounds, as compared with wounds generally, the wound cavity is, until we incise it, aseptic and the incision made is exactly where, and of the extent, we would have it. Drainage therefore is perfect and constant, and with perfect drainage how many wounds ever cause trouble? Practically none.

For the first two or three days discharge is fairly profuse, then it rapidly diminishes, and ceases in from about a week to a fortnight, depending on the size of the cavity. In its place is left a flat slightly raised swelling, showing the yet unhealed cut in its lower half. This swelling also in its turn soon disappears.

Outside germ contamination may or may not occur, but when it does happen it is usually not until 2 or 3 days after opening up, and is invariably mild and confined to the lower parts of the wound. Indeed a little pus infection at this period does not appear to materially alter the progress or result.

Following the above method I have had no trouble with these cases, and recovery has been invariably satisfactory. No blemish or thickening remains. In a few, crinkling of the skin persisted for 3 or 4 weeks, but this happened only in those where the undermining had been very extensive. Provided that harness does not interfere with the affected part, the animal may be used, if wanted, as soon as all discharge has ceased, but care should be taken not to return him too early to the lines—alongside the very horse, perhaps, that bit him in

the first instance. For a little while, the injured part would readily yield to a second bite.

In conclusion, I may say I have advocated this treatment to several V. O. I have met here in France; and to those who have not tried it, or who have trouble with these cases, I can only say that if they adopt this treatment they will have no after regrets. Indeed, I feel sure they will soon come to regard this injury, as I do, as one of only minor importance.

JOHN ROBSON, M.R.C.V.S. Capt. A. A. V.C.  
27th Feb. 1919.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### SUDDEN DEATH IN THORACIC EFFUSIONS.

Sudden deaths in the course of thoracic effusions, which are sometimes reported in man, may also be seen in the domestic animals. Ducasse reported a case in a horse in 1908, and Petit two cases in dogs in 1913. Lasserre and Lesbouyries, in *Revue Vétérinaire* for 1914, reported the two following cases in cats, which occurred within five months.

The first animal, which presented clinical symptoms of pleurisy with effusion, died at the moment when the rectal temperature was being taken with a view to the tuberculin test. The animal, after struggling violently, died suddenly. Post mortem examination confirmed the diagnosis, revealing tuberculous pleurisy with pulmonary caverns.

The second cat showed a bilateral dulness of the chest to percussion. While auscultation was being carried out, the animal suddenly fell into syncope and died. This cat was affected with pyo-pneumothorax of non-tuberculous nature; microscopic tests and the inoculation of the guinea-pig both gave negative results.

In these two cases it seems that the syncope, which was facilitated by the abundance of the pleural effusion, had its origin in the very acute agitation of the first subject at the moment when the temperature was taken; and in the manipulations of auscultation and percussion in the second subject.

The practical conclusion to be drawn is that, in the case of any animal suspected of being affected with a pleural effusion (and the respiratory discordance should awaken the suspicion) the veterinarian should exercise extreme care in auscultating and percussing, and avoid either agitation of the animal, excessive pressure, or sudden changes in the different attitudes necessary for the examination.

A Belgian commentator adds the three following cases from his own recent experience. The first was a dog affected with purulent pleurisy following upon distemper. One day this animal was placed upon his back, and was then attacked by a fatal syncope. The other two cases were in cats showing symptoms of pleurisy. Both died in the course of manipulations necessary for the examination of the chest; and both were found post mortem to be affected with tuberculosis.—(*Annales de Médecine Vétérinaire*).  
W. R. C.

#### VETERINARY MEDICAL ASSOCIATION OF IRELAND.

[NATIONAL V.M.A.—IRISH BRANCH.]

(Concluded from p. 322.)

##### SPECIMENS.

The CHAIRMAN: Before you discuss Mr. Magee's paper I wish to put a few specimens on the table. Unfortunately there are very few of these brought forward at our meetings.

##### *Natural repair of Fractured Femur.*

The first is the femur of a collie dog. Some years ago the dog was sent to me suffering from a fracture of the femur. Being of the opinion that there was very little chance of setting it properly in the ordinary way, I suggested to the owner to let me put the dog under chloroform, cut down on the fracture and wire the broken ends together. He didn't like the idea and decided to let the patient take his chance.

I was informed that a couple of years previously the animal had broken the same bone, and that it had united by itself.

The owner, adopting the same treatment again, let the dog "have his fling" and, strange to say, union again took place spontaneously. I have seen the dog many times chasing up and down the village, and the only sign of his having had a fracture was a pronounced lameness. Last week he bit a child, and his master sent him to me to be destroyed, which I did with chloroform. By examining the bone you can see that the unions after the fractures were bad, with the result that the bone seems to be twice as thick as its fellow of the other leg, and nearly an inch shorter.

##### *Urinary Calculus in a Bull.*

The next is portion of the penis of a bullock, showing a very good specimen of a calculus *in situ*. I asked the owner to let me operate, but as the animal was fairly fat he preferred to send him to the butcher. The usual symptoms of urethral calculus are loss of appetite, wasting, frequent urination—every half hour or so, kicking at the belly and switching the tail. There was, however, one symptom in connection with this case which I have never observed before, nor have I seen it mentioned in any text book. The bullock with his fore feet would sometimes scrape away the grass for about three or four feet and having made a shallow hole in the clay would lie down with his belly in the hole.

Mr. HEALY: He improvised a catheter.

Mr. MAGEE: I think his idea was to try and cool the abdomen.

##### *Impaction in a Dog.*

The third specimen is one which I found in the intestine of a terrier that died from stoppage. When brought to me the dog was *in extremis*, and I told the owner that I could not really say what was wrong with him, but that there was no hope for him. He died a few hours later. I found a couple of feet of the small bowel packed with what at first seemed to be some new form of tape worm. It completely puzzled me. On examining it closely I found it consisted of numerous thin, tape-like strips of rubber. A young lad who was helping me said that it was the inside of a golf ball. The owner afterwards told me that the terrier was very fond of taking up golf balls in his mouth and playing with them.

##### *A useful Instrument.*

This is an instrument called Malloch's Dent wedge, which possibly some of the members may not have seen. I think it is one of the best, and cheapest mouth gags on the market. It is simple, and cannot go out of order. It takes up very little room, and is equally serviceable for horses and cattle. Yesterday I used it in a bad case

of choking in a cow. The obstruction was a large raw potato which was firmly wedged in the commencement of the gullet. It was too large to push down with the probang, and I found it impossible to get a proper grip of it with my fingers to pull it back. Having tried various dodges for more than half an hour and failed, I finally succeeded by getting an assistant to press hard with his two closed fists on either side of the gullet beneath the obstruction and thus to gradually force it up a little. This enabled me to get my fingers around the potato and to pull it out, to the great delight of the poor woman who owned the cow.

I have found this gag extremely useful on many occasions, and I think it is well worth bringing under the notice of the members.

Mr. HEALY: I have been using it for some time, and it is of great advantage in rasping horses' teeth. If you put it in on the near side while working on the off side you won't have half the trouble. I got a tooth rasp made by Sharp and Smith of Chicago. They have two kinds—one that rotates and a flat one. Often if you use the usual gag the horse will get cross.

Mr. MAGEE: A young horse objects less to it than any other gag.

Mr. HEALY: It is also very useful if you get a snoring case.

#### *Blue Urine.*

Mr. MAGEE: The next specimen is, in my experience unique. It is blue coloured hair, which I have taken from the prepuce of a bullock. Standing a short distance from the beast and looking beneath, one got the impression that there was a blue, jelly-like substance hanging from the prepuce. The hairs, as you see, appear to be covered with a thin coating of lime salts, blue in colour. A short history of the case may be interesting.

He was a two-year-old bullock. A short time after he was skulled he commenced to do badly. He kept away from his companions, and sometimes walked around in large circles. The owner said there was also a slight discharge from the butt of the right horn core. When I saw him the discharge had stopped, but the other symptoms could be observed. Suspecting sinus trouble I tested by tapping, but there was no difference in the sounds, and no signs of bulging or pain on pressure. Thinking that possibly there still might be trouble in the sinus, I decided to make, a few days later, an exploratory opening through the horn core and to pass down a long probe into the sinus. However, before I could do this I got an attack of the "flu" and was laid up for a month. It was during this time that the herd, a most trustworthy man, observed the bullock passing blue water. He said it was just the same as when his wife mixed Reckitt's blue with water for washing. The beast passed the blue water for about a week; it then became normal in colour again.

We already have red water and black water, but we must now add blue water to the list. Although I did not actually see the beast passing the blue water, I do not doubt the herd's word for a moment—he could have no object in concocting such a story—and the blue colouration on the hairs of the prepuce are, I consider, a convincing proof of the truth of his statement. When I saw the bullock again he seemed to be picking up and showed no signs of head trouble, and although still poor in condition I advised the owner to "let well enough alone".

Mr. HEALY: If you can have blue milk you can have blue urine. I have seen blue milk from cows.

#### *Intussusception.*

Mr. MAGEE: This specimen here is one of the cases of intussusception I refer to in my paper. I must apologise for not producing the second specimen of this condition. It has got mislaid.

#### *Forceps.*

This instrument is Hobday's bitch forceps which has also been mentioned in one of the cases reported.

CHAIRMAN: You have heard Mr. Magee's account of these interesting specimens. We would like to hear some remarks upon them.

Mr. MAGEE: Mr. Chairman, before any discussion takes place, with your permission I would like to say we have with us this evening a member we have not seen for a long time—Capt. Winter, and on behalf of all present I bid him "welcome back." During the last four years I am sure he has seen a good deal of life abroad and had many interesting experiences, and, time permitting, I would like him to tell us some of his adventures in the veterinary world.

Capt. WINTER: It gives me great pleasure to be amongst you again. I am sorry that my absence has hurt the other association to which I belong, owing to my not having time to resign my position formally. But I hope to remedy that and get it into life again. I think friendly rivalry helps a good deal.

As to these specimens, I think they are particularly interesting. I have lively recollections of a case of choking with a potato, but in my case the potato had been boiled. I could touch it with my finger, but nothing more. I could not get hold of it with a corkscrew nor put it down. Finally I got it away by getting the assistance of a man to push against me until I got behind it. It was the hardest hour's work I had in my life. Mr. Magee's communications are very interesting, especially the case of intussusception in the dog. His case of a foreign body is also interesting. At first sight I thought it was a tapeworm, but it would be a long one.

About the amputation of the sow's organ, I had two or three cases like that with different animals, and I think it is the only thing to do when you get the uterus badly damaged. It is not a formidable operation and as a rule results satisfactorily. I have done it with a mare and a cow. The mare will kick and otherwise injure the part, and the smaller animals will walk on it. If you get rid of the whole thing from the neck and get a clean wound, and get it back into the vagina, the result is generally favourable. The whole thing is to get it done in time.

I had one or two experiences of horses being "set," and got them "put over" on me too. I knew intimately an old man who undoubtedly could set a roarer or a whistler and he tried me "pretty high" once or twice. He did me once, but I got him twice afterwards by turning up unexpectedly. These cases would be alright for about 24 hours. I have examined a horse at his place which I knew to be a whistler and had to pass him, but two days afterwards he was a whistler again. There was nothing whatever that I could detect. I would give a good deal to know what he used, but he never told me nor anyone I know of. Of course if you see a horse "dopey" you are not always at liberty to put him back for a day until you communicate with your client. Undoubtedly that practice is dying out in the country, but it used to be very common when I started practice.

As to the newly born foals, there is no question that they are very liable to constipation, and in a good many stud farms it is customary to give a foal an injection of linseed or castor oil immediately after it is dropped, and with very good results. I prefer linseed myself. That generally obviates the trouble, a good many farmers used to pass a tallow candle into the rectum.

Mr. HEALY: A glycerine suppository beats that. You can't get tallow candles now.

Capt. WINTER: There are a good lot of old customs practised amongst farmers which had a good deal in them.

The cases of these thoroughbred horses were rather peculiar. We come up against such cases now and again. I should think they were cases of poisoning of some sort—probably by the fungus suggested here.

These cases are very common all over America, and the subject there has not been fully threshed out, owing to the districts being thinly populated and the difficulty of veterinary surgeons getting round the country. The profession however is progressing there. A good deal of that is due to the activity of associations, the membership of which is growing. I had the pleasure of attending two or three meetings of the American Veterinary Association and they were very interesting. The only objection I had was that everywhere I went I was asked to give a "talk" and some of the remarks were very caustic. I introduced one or two things which I thought were good. One was the Rig operation, which I had done. Some of them were very sceptical, but they could not get a case to operate on. However, they found me an old mare and I removed her ovaries in the same fashion, which was almost as satisfactory as taking out a testicle. One member said he had been doing abdominal operations for a great many years and never had a death. My observation on that was that in my country we would think that extremely lucky. (laughter). I do not think there is anything more interesting, and which promotes discussion amongst members more freely than notes on clinical cases, and the production of specimens like these. They are the result of every-day practical experience, and I think they are very interesting. Later on probably I may be able to relate some of my experiences on the other side of the water, when I get them together in a more concise form.

Concerning the two horses, it struck me when I read these cases that it is quite possible it may have been sorrel poisoning, and if the place is any way near at hand, it might be worth Mr. Magee's while to walk round and see if he will find any sorrel in the clumps. I think vegetable poisoning in both horses and cattle is much more common than is thought.

Mr. WILKINSON: I have to thank Mr. Magee for his interesting and candid paper. We have had very few papers like this that admit deficiencies. As to the sow, I would like to ask did he put on one ligature only, and what became of the ligature eventually? [Mr. Magee: Just bring it round and knot it, it sloughs away afterwards.] I think that forceps for concretions in foals is a good suggestion. Like Mr. Healy, I have used glycerine with good results. It seems to be very powerful, and acts satisfactorily.

I remember one case of obstruction in a dog, which I was told had not passed anything for a fortnight, at any rate the animal suffered considerable pain. I examined the rectum and found a piece of thread hanging out, and when I tried to draw it out it gave the dog excruciating pain. On putting my finger as far as I could reach I felt a needle embedded top and bottom. Finally I got rid of it after very considerable difficulty by introducing a scissors and cutting the needle in two. [Mr. Magee: Had he swallowed a needle?] He must have. It was across the rectum, and you could not possibly pull it out. The thoroughbred cases seem to me to be narcotic poisoning. You don't mention if there were any other horses. [Mr. Magee: There were only two horses, but there were cattle on the land.] I have read some accounts in *The Record* of poisoning from ragwort. It just occurred to me there might have been some of that about.

Mr. MAGEE: You must remember there was a botanist in the case.

Mr. HEALY: I have to thank Mr. Magee for the practical paper we had from him and also for the specimens he has shown. I would only like to refer to the "setting" of horses. I remember one case which occurred at the

Dublin show. There was a big chestnut horse examined for its wind by the late Mr. John Freeman. It was sold for a long price to a member of the profession, Mr. Henry Withers, of London. Mr. Freeman who was examining the horse beckoned me over to him while galloping the horse for his wind. I got the aroma of chloroform from him, and drew Mr. Freeman's attention to it. He adjourned his examination for two days; on the third day he was the worst roarer a man could hear. That horse had been "set" with spirits of chloroform. For the "setting" of a broken winded horse, the old tinker treatment of shot and butter is one of the best. I remember seeing a case one time with Mr. Ashe of Cork, when coming from the fair of Bartlemy, a horse dead in a dyke. The man who had bought the horse hailed him, but Mr. Ashe said nothing could be done for the horse, and that he should be taken to the kennels. We went to the kennels the next morning and opened him, and found about 60 or 70 pellets of swan shot—old fashioned bullets like you would make for a catapult—and the stomach was badly ruptured. He had been examined by a practical dealer and passed sound of the wind.

Mr. WILKINSON: I had an instance which happened in my own practice within the last six weeks. I was asked to examine a very fine draught horse, and the man remarked to me afterwards "If it is wrong in its wind, it is not your fault." Three days later the horse came in to be shod: I was in the office, and I heard a most suggestive cough. I went out to see the horse and here was the lovely animal I had passed sound three days before. He had the characteristic heave and cough of a broken winded horse. The man said they had a week's agreement, and the horse was sent back. I saw the horse about three days afterwards and he was perfectly well—no sign of any heave at all. I did not gallop him, but the thing was so patent before that an amateur would have noticed the difficulty in breathing. There was no suggestion that the horse had been "set." One of my friends told me he had met a case of it and he had attributed it to spasmodic asthma.

Mr. DUNLOP said: I am sure we are all much indebted to Mr. Magee for giving us a paper and producing, on short notice, such interesting and unique pathological specimens. He had always entertained the idea that broken wind was a chronic form of asthma, the result of continued congestion and thickening of the lining membrane of the minute bronchi. In aged or middle age horses very special care should be exercised in testing for broken wind. The cough, especially after galloping and a drink of water, is a good criterion, and he thought a few whiffs of sulphurous acid gas might be had recourse to in doubtful cases. He never could understand why shot should be used to set the wind. Shot is not only dangerous but the lead dissolves too slowly in the stomach to have any medicinal effect. He thought, for setting the wind, it would be hard to beat Professor Dick's formula, a dram each of calomel, opium, and digitalis. He had on several occasions had his attention directed to the wonderful curative effects of a combination of some mercurial preparation with digitalis, squills, and certain salines as used in the human subject by some eminent physician. The effects were most marked in clearing out the smaller bronchi and as an absorbent in cases of schirrous liver.

So you see there is some similarity between Dick's formula and up to date medical treatment. Needless to say it is of primary importance in treating such cases to remove the cause, and to attend to dieting and scientific ventilation (not fresh air, which usually means draughts.)

With reference to union of the fractured femur by overlapping, it is surprising what nature does sometimes. He had a dog brought to him by a lady. The dog had

a fracture of the neck of the scapula, the result of a kick from a horse. He first applied thin gelatine on the hair over the scapulas, then he applied a bandage in the figure of 8 fashion. He then used a suitable thin splint extending from near the top of the scapula to the elbow. Another figure of 8 bandage with gelatine was applied over all. The dog seemed quite comfortable after the bandaging and continued to hop about, until one day he went into the water for a swim and left bandages and splint behind. He evidently found they were no longer necessary.

Mr. LAMBERT: I have great pleasure in complimenting Mr. Magee on his very excellent paper. I would like to make a remark about the golf ball. I came across a similar case in a dog. The core of a golf ball is very small and hard, and when it gets into the stomach opens very easily and gets just like the specimen produced, once it comes in contact with any wet. As to the "setting" of the wind I have come across several cases where men have bought horses and told me they had been driving them the day they bought them and they were perfectly alright, and the next morning they found them badly broken winded, and came to get a certificate so that they could return them. I never could make out how they were "set," they were so badly broken winded. As to choking in cattle I would like to ask if he had ever tried arecoline in these cases. I always like to take my time over a case I cannot manage easily, and have always found arecoline very successful. As to the fracture of the bone, it is a very common occurrence, and I have seen fractures very similar to that one. I have held any amount of post-mortems on dogs with jaundice and found intussusception but not in every case. I have seen hundreds of cases of puppies with intussusception without jaundice. I don't think it is necessary to have intussusception in jaundice at all.

Prof. CRAIG: I have read with very great interest the paper which Mr. Magee has prepared for discussion at this meeting and I am glad he has brought forward these valuable specimens to demonstrate the conditions which he has met with. The cases he records are well worth discussion and in some of them there is no unanimity of opinion as to the cause of the condition. There are a few points which struck me in reading the paper and listening to the further clinical cases which he has described.

As regards the two cases of jaundice with intussusception I cannot agree with his ideas of cause and effect. Cases of jaundice in dogs are not uncommon in this country, and their causation has not been ascertained. They have been referred to as cases Malignant or Epizootic Jaundice. They have been seen in kennels where distemper is prevalent, but their connection with distemper is not apparent. I have examined a number of these cases. There are no piroplasms in the blood. The jaundice is not due to catarrh or any pressure upon or obstruction to the bile ducts. The bile may be easily pressed at a post mortem examination from the bile ducts into the duodenum. The jaundice in this case is probably bacterial or toxic in origin. In some instances I have noted, like many others, intussusception of the bowel at an autopsy, but I think that the intussusception occurred during the last stages of the disease. Unless the telescoped bowel involves the opening into the bile duct, it is unlikely that jaundice will follow. I therefore take it that the intussusception has followed upon the jaundice. Trasbot in some experiment ligatured the intestine, but the ligation was not succeeded by jaundice.

With regard to the question of broken wind, I think our knowledge of the pathology of this disease is yet in a state of chaos. We speak very glibly about broken wind, but we don't know exactly what is the cause of the condition. It is usually referred to chronic vesicular

emphysema of the lungs, but I question very much whether that condition accounts for the symptoms we associate with the disease. I have examined cases where the post mortem examination revealed very extensive emphysema and yet these horses had shown no symptoms of broken wind during life. On the other hand, I have examined the lungs of some horses which were broken winded and yet very little emphysema could be detected at all. Possibly there is more than one condition described under the heading of broken wind. Some of the cases probably are cases of bronchial asthma. No doubt we try to distinguish some of them by the cough but it is the temporary reappearance of the symptoms which is of the greatest diagnostic value. I have no doubt that it is these instances some people have been wrongly accused of doping. That the drugs which have already been referred to as well as others are of value in moderating the symptoms of broken wind or giving temporary relief rather indicate that there is something other than vesicular emphysema to account for the condition.

With reference to the case of West Indian and Rodney Stone, I cannot offer any definite opinion as to the cause of the trouble. I think I have seen two cases of the kind, one in a donkey and one in a carthorse. The usual history which precedes haemoglobinuria was not present. Both were in good condition and were fed in the house and in addition were receiving the same diet as some other animals. The urine of these two was like that of coffee and I thought they were affected with haemoglobinuria. Both animals died after a short illness. In neither case was there any nephritis and I could find no muscular lesions such as one expects to meet with in haemoglobinuria.

Possibly the cases Mr. Magee describes were caused by some obscure form of vegetable poisoning. We do not yet know whether at certain times or under certain conditions some of the common plants may acquire poisonous principles. In view of recent investigations it is quite probable that this may occur, and an ordinary chemical analysis give no indication of the presence of the poison. It has been suggested that sorrel may account for the condition. I think that the poisonous action of sorrel has yet to be thoroughly investigated. We know that in France and Canada there is a haematuria of cattle in which the experimental evidence goes to suggest that the cause is an excess of oxalic acid in the food, but the cases are chronic. They are not at all comparable with those that Mr. Doyle has spoken of or those described in the paper. I may say here that I have come across a few cases where the history and condition of the urine points to the occasional presence, in some parts of Iceland, of a disease in cattle similar to that described in France and Canada.

I am glad to hear that Mr. Doyle has been so successful in his treatment of the affected animals, whether they were cases of sorrel poisoning or not. The specimen of white hairs which Mr. Magee removed from the opening of the prepuce in the ox I have examined and I note that the colour is due to the deposit of lime-salt upon the hairs, no doubt coming from the urine.

Mr. NORRIS: I speak with considerable diffidence upon clinical matters, as it is now some years since I have been engaged in general practice. I am, however, greatly interested in the cases and specimens which Mr. Magee has so kindly provided for us. The case of the sow seems to be another illustration of the insusceptibility of the pig, to shock and septicæmia. As to "wind setting" I have very little experience, but I am inclined to agree with Prof. Craig, that all such cases are not cases of Emphysema of Lungs. Some of them may be "Spasmodic Asthma"—whatever that may be. The deaths of the two horses are puzzling—but very interesting. Mr. Magee and other speakers are inclined to



attribute the deaths to some form of vegetable poisoning, and this view of the case I support. Sir S. Stockman has shown that some plants,—commonly regarded as harmless, may by cumulative action cause death, and it is just possible something of the kind may have operated in these cases. The recent work on the subject of plant and forage poisoning shows there is a great field for further research upon this subject, which, apparently, has been too long overlooked.

Mr. CUSHNAHAN: I have to thank Mr. Magee for bringing before us such important subjects. I remember some years ago a similar case of eversion of the uterus coming under my notice. The eversion had been in existence for some short time, and the uterus had become more or less tumefied; I saw no course to adopt other than excision. I passed a double ligature through the neck of the tumour and removed the uterus. Of course, I was fairly satisfied that no abdominal viscera was included in the eversion. These cases are rare, and I have not seen any in recent years.

Broken wind is a very important subject because it is really a veterinary legal matter—at the present time cases come into the courts where veterinary opinions are conflicting. Mr. Wilkinson mentioned spasmodic asthma; I remember a short time ago a practitioner who has a large practice in the examination of horses told me that he had examined a horse and cast him for broken wind. Later, when he saw this horse he considered him sound. He had no doubt it was a case of spasmodic asthma. In my opinion broken wind may be due to spasmodic asthma or to emphysema: the latter is usually accompanied by hypertrophy of the heart. When I examined horses years ago, I was pretty well satisfied with the character of the cough; I never troubled much with "heaving" or "double flank action." I remember on one occasion having examined a horse, and after a stiff gallop I was almost satisfied he was right; but after coughing him I was convinced he was "broken winded." Whether this horse was "set" or not I could not say. Lead has been spoken of as the usual agent for this purpose. It may have a mechanical action, and cause relief for a time; or it may have a physiological one through the nerves.

The death of two horses mentioned by Mr. Magee interests me particularly. It has opened up a wide field so far as the diagnosis of intestinal trouble is concerned. I have seen many cases of death due to colic when the post-mortem did not help us out as to the cause of death; all the organs were perfectly normal, and we could not find even a trace of congestion in stomach or intestines. As to vegetable poisoning, a good deal has been written by experimenters in many countries. Sir Stewart Stockman must be regarded as the foremost experimenter in these countries. Whether death in all cases of vegetable poisoning is due to toxins is hard to say. Some may act by causing impaction; we all know that in a horse affected with stomach staggers the condition is due to toxin in rye grass at a particular period of "seed-ing"—I think it is an accepted theory that this condition is due to a toxin produced in the new hay immediately after it is cut. I have seen many cases, and the symptoms shown were undoubtedly toxic. I have also seen similar cases occur in cattle during dry seasons. These were usually attributed to indigestion, but I regarded them as toxic. Recently I have read a paper by Professor Graham of the department of Animal Pathology, University of Illinois. He, with others, has carried out experiments with regard to poisoning by certain cereals. At the Kentucky State Veterinary Department they found in oats a bacillus resembling in all respects the *Bacillus Botulinus*. Professor Craig says that probably the toxin may have been in the plant, but Professor Graham and his colleagues satisfied themselves that death invariably occurred in the cases experimented on through feeding animals on organisms recovered from

the oats taken from the different farms. Horses and mules were used in the experiments, and feeding them with drinking water contaminated with these organisms produced death. Another interesting matter he mentioned was that they treated ruminants from these cultures and produced an anti-toxin serum. This seems to open up a new field of research. It may have a good deal to say in the future in the treatment of colic and intestinal cases.

These cases of vegetable poisoning are well worthy of consideration—whether the toxin is elaborated in the plant itself, or due to saprophytic organism on the plant. Seeing that valuable animals die from obscure causes I think that such deaths are worthy of investigation.

Mr. Magee's communications are always full of interest, and I have to again thank him for bringing these forward for discussion.

Prof. MASON: I have been experimenting with methylene blue through the whole of Ireland in the treatment of contagious abortion, and it is quite possible some person has been using it as a remedy for abortion and promiscuously used it on all his animals, and that would account for this blue hair. With regard to vegetable poisoning, when Mr. Doyle was ill some time ago he asked me to look after a few cases for him. His qualified assistant asked me to look at some cases which he took to be red-water. I knew Mr. Doyle was particularly interested in this matter of vegetable poisoning, and I did not agree with his ideas. I treated these cases as being red-water and failed miserably. I think this is one of the things worth studying—vegetable poisoning as distinct from red-water. In these particular cases I made no examination of the blood. These were cases such as I believe Mr. Doyle has previously treated successfully as vegetable poisoning in that neighbourhood.

There was one point as regards broken wind which nobody seemed to pay any particular attention to—the mechanical action of shot. We were taught in our young days to diagnose broken wind as a want of synchronising of the different respiratory parts—you know the double heave; and we thought, whether rightly or wrongly, that by loading the stomach with shot we would just restore the balance—and it succeeds. Whenever you suspect that the thing has been done give the animal a good drink of water and the dope has lost its power.

The CHAIRMAN: Before asking Mr. Magee to reply I must say how much I appreciated his paper. I was very interested in the cases he described. I would have liked a little more information about the case of amputation. He said that after applying two ligatures he seared the stump with a hot iron. I wonder was there much haemorrhage; and if not, why did he use the actual cautery? Was it for the purpose of destroying the stump and making it come away more easily, or to sterilise it? The sow being in a collapsed condition and apparently at the point of death, did he give it any restorative or stimulant? What after treatment did he adopt? Did he order the vagina to be washed out periodically; or prescribe any medicine for the sow? I would like to know if he had many cases of this kind, and what was his success with other cases. I remember reading an account by an Italian veterinarian of the remarkable successes he had with this operation in various animals. It would make one think that really he was not telling the whole truth. For example, he amputated the uterus in 86 cows with 77 recoveries, in 8 mares with 6 recoveries, in 27 sows with 22 recoveries, in 9 bitches with 9 recoveries, in 4 goats with 4 recoveries, in 3 sheep with 2 recoveries, and in 3 cats with 3 recoveries. I have not had an operation of this kind myself, but I have had a few cases of hysterectomy through the abdominal wall with varied success. The most interesting case I had was that of a 14 yrs. old Chow bitch afflicted with

hysterocele. On opening the hernial sac I found that it contained portion of both uterine horns which were distended at intervals by swellings varying in size from a walnut to a hen's egg, due to accumulations of pus. I proceeded to amputate the organ, and tried in vain to draw out the remaining parts of the cornua through the hernial opening, the swellings therein prevented their exit. I was obliged to incise the hernial ring to enlarge it and even then I had difficulty in getting them out. On bringing the body of the uterus into view I applied ligatures in the usual way and removed the organ. I swabbed the stump with a solution of potassium permanganate, and finished the operation as usual, ligating the hernial sac and suturing the hernial ring and the skin. The wound appeared unhealthy for 2 or 3 days, then commenced to granulate nicely, and the patient made a good recovery. I consider the case worth mentioning on account of the combination of the two conditions—hysterocele and pyometra, and the complete recovery of the patient although 14 yrs. old.

I met with a remarkable case of intussusception in a mare recently. A valuable 5 years old draught mare had difficulty in foaling and a layman, after prolonged interference, delivered the foal. The mare strained violently afterwards and caused about five feet of invaginated bowel to be prolapsed through the anus.

I saw the mare about 16 hours after the accident with the prolapsed mass almost touching the ground and commencing to gangrene. I considered the case hopeless, but decided, in conjunction with another veterinary surgeon, to amputate the prolapse after cleaning it and drawing upon it to expose a healthy part.

I brought the peritoneal surfaces of the invaginating and invaginated parts into apposition by Lembert sutures and cut off the bowel behind the line of sutures. The mare was already suffering from the effects of infection of the peritoneum, and died the following day.

The case of obstruction in the foal and the use of the forceps in connection with it reminded me that I found Mr. Kenny's bitch forceps very good in cases of obstruction of the bowel in the dog, where you can barely reach it with the finger, one jaw of the instrument serving as a blunt curette to push between the bowel and the impacted mass to break down the latter.

I have nothing to add to what has been said about the cases of the two thoroughbreds.

I think I have never been at a meeting at which there was a better discussion. It was a really good practical instructive discussion. We are indebted to Mr. Magee for having provided for it by his excellent paper and very interesting specimens.

#### REPLY.

Mr. MAGEE: I am very glad that you have considered my short paper interesting. Regarding the remarks of Capt. Winter as to the length of time for which a broken winded horse can be set, I was inclined to think that the effects of the dope would only last 24 hours. My father-in-law, who was a horse dealer, told me that a horse he bought at a fair remained set for three days after bringing him home, and then broke.

What Capt. Winter says as to the use of a tallow candle and injections of oil in the treatment of constipation in newly born foals may succeed in some cases, but with those I refer to I don't believe that any injections or suppositories would have the effect of dissolving the hard masses of meconium, the consistency of which I can only compare to hard putty, or, in some cases, almost concrete.

Before I adopted this method I lost a foal affected in the way I have described. I administered oil by the mouth and repeated injections of oil and warm soap solution, and tried to break up the mass with a spoon, but it was useless. A great advantage of the forceps is

that once you grasp the obstruction it cannot slip away, as it bulges somewhat through the perforated jaws of the forceps. When gentle traction is applied a piece of meconium several inches in length will sometimes come away. The outside edges of the jaws being convex seems to prevent the bowel being injured.

In referring to the cases of the two thoroughbreds, Capt. Winter said that a good many of these occurred in America. I know myself from reading American veterinary magazines that they are very keen on the subject of forage poisoning, and I also think we have more of it over here than we realise. However, the reason I don't think that this was a case of forage poisoning is that they only received the oats and hay when they came in each morning. One got bad a few hours after coming in, and the other took ill in the paddock. That, I think, would point to their having obtained the poison, or whatever it was, sometime during the night. The oats and hay were above suspicion. As regards Mr. Doyle's suggestion of sorrel poisoning, I don't think it affords an explanation, because there were also cattle in the paddock, and they would have become affected just as likely as the horses. They were there from June to October.

In cases of intussusception I think that where jaundice is caused by it the telescoping is likely to be in the small bowel, because if it were far back in some of the large bowels the bile could pass along for a considerable distance, performing its functions, and would not be so likely to be absorbed into the system and cause the yellow discolouration of the skin and membranes.

Mr. Healy spoke of a whistler being set. I did not know it was possible to temporarily prevent the noise made by a whistler or a roarer. I remember a farmer, who was evidently not afflicted with too much conscience, once telling me that he succeeded in getting a whistler passed by giving him a pint of glycerine some hours before he was examined. This may be so, for glycerine is a wonderful thing in many ways; but I can't understand the mechanism of a dose of shot and butter or fat disguising the symptoms of broken wind so that it will last for 24 hours or more. Professor Mason said the test for that is to give water to the animal. But I gave this mare water and hay which she took, but it had no effect. So evidently shot was not the dope in my case.

Since I wrote the paper, a horse dealer, who has the reputation of knowing most of the tricks of his trade, and who apparently has his own idea about "doing his bit," told me that he passed a broken winded horse into the army by giving it two wine-glass-fuls of paraffin oil in a pint of linseed oil.

Mr. Wilkinson referred to the difference between the symptoms of broken wind and asthma. Personally I believe I have only met two cases of genuine asthma, both of which recovered in a few weeks without treatment.

In asthma the respirations have a typical wheezy, asthmatic sound which is not present in broken wind, although the respiratory movements are often very much alike. In some pronounced cases of broken wind you have the characteristic double movement and in others you have not—you have only the heaving. I don't know what the explanation is. That all cases are not due to the same cause I am confident. I have completely cured some with vergotinine, while on others it hadn't the slightest effect.

Mr. Lambert explained a point about the terrier swallowing the inside of the golf ball on which I was not clear. I thought he swallowed the ball and that the cover was digested in his stomach. [Mr. Lambert: He only swallowed the core.] Mr. Lambert asked me did I use arecoline in cases of choking. I did so once with success in a horse where the stoppage was between the lungs. I also gave a little linseed oil. I think

arecoline is a good thing in such cases. [The Chairman: Some say eserine is good.] Mr. Magee: Professor Craig is inclined to doubt, and, perhaps, rightly so, that the jaundice was caused by the intussusception. I think, however, when you make a post-mortem and find invagination of the small bowel and no other pathological condition present, except jaundice, that is a natural conclusion to come to that the bile was dammed back by the telescoping of the bowel and not *vice versa*, as he suggests.

Both Prof. Craig and Mr. Norris spoke of the likelihood of asthma being mistaken for broken wind. There is no doubt that this may easily occur. I think I know the case Mr. Cushman referred to. It happened in County Meath. My own opinion as to the dope most often given to broken winded horses by tinkers, etc., is that it is one of the drugs containing atropine, however they obtain it. [Mr. Knight: Antimony is the stuff they give them.]

Mr. Norris's suggestion that the cases of the two thoroughbreds might be the result of the slow accumulation of some vegetable poison in their systems till it became toxic is not, to my mind, satisfactory. If it were the case it is improbable that the two horses would have become affected within a few hours of one another. [Mr. Norris: Oh, yes, they would. In the experiments the animals went down about the same time. It was three weeks before any symptom was shown and then one of the animals suddenly showed acute symptoms and died, followed, the next day, by another one. The test in one case was ragwort which was supposed to have no poisonous effect whatever. It has been shown that the poison accumulates in the system until it has a poisonous effect.] Mr. Cushman mentioned how unsatisfactory post-mortems often are, and I am sure we have all had that experience. But I think I can say that in almost all fatal cases of genuine colic which I have met; where the animals showed manifestations of abdominal trouble and did not become paralysed, I have been able to find a satisfactory explanation on post mortem. I have, however, met several peculiar cases where the pain was associated with paralysis from the start, and to which a P.M. examination gave no clue. In my experience fatal colic attacks were due to twist, rupture, intussusception, enteritis, peritonitis and thrombosis.

Prof. Mason suggested that the bullock that passed the blue water might possibly have received methylene blue in the form of medicine. I am certain he did not.

In reply to Prof. O'Connor, my reason for searing the stump of the neck of the sow's uterus was to sterilise it, and to prevent possible infection afterwards. I did not give a stimulant, although I think it would have been advisable. No after treatment was advised—on the principle that, in such cases, and with people who often don't carry out instructions, it is best to leave well-enough alone. I cannot say what ultimately happens to the stump behind the ligature, but I am inclined to think that it eventually sloughs off. The cases reported by our Italian friend, Lanzilotti are certainly wonderful. His successes, however, appear to me to be, in vulgar parlance, "pretty thick." A Scotchman would say "I hae me doots." I have had only two successes, although I have performed the operation on six occasions. I said there are pitfalls to be avoided. If the animal is far gone it won't stand the shock. We must also be very careful in tying the ligature, and to leave a sufficiently long stump behind it: if the ligature slips off there will be fatal haemorrhage. One should also make certain before starting to operate that there is no hernia of the intestine into the uterus. I had such a case and it was certainly an "eye opener".

In conclusion I have only to express my thanks to you for your kind remarks, and for the interesting way you discussed my short paper.

The CHAIRMAN: I think we may congratulate ourselves on the very successful meeting we have had.

Mr. NORRIS proposed a hearty vote of thanks to the Essayist and said that he always thoroughly enjoyed a paper from Mr. Magee because it dealt with matter of practical and scientific interest which led to an excellent discussion.

Mr. CUSHNAHAN said he had much pleasure in seconding the motion.

Mr. MAGEE in responding said he was very glad that his paper was so much appreciated and, judging from what Mr. Norris had said, he considered he was justified in feeling proud of his little effort to provide material for discussion at their meetings. He would be very glad to do so again but before that he hoped others would come forward with papers. He would suggest that their President present one soon, on a surgical subject, for he had a high opinion of Prof. O'Connor's skill as a surgeon, and had availed of it in connection with operations with which he had not been familiar; but having seen Prof. O'Connor operate he had no hesitation in tackling them himself afterwards.

Mr. HEALEY proposed and Capt. Winter seconded a vote of thanks to the Chairman.

The CHAIRMAN acknowledged, and said he was grateful to Mr. Magee for his kind reference to him.

## YORKSHIRE

### VETERINARY MEDICAL ASSOCIATION.

[NATIONAL V.M.A.—NORTHERN BRANCH.]

The Annual Meeting was held at the Hotel Metropole, Leeds, on Friday, February 21, at 3.30 p.m.

The chair was taken by the President Mr. S. E. Sampson, M.R.C.V.S., Sheffield, and the following were present:—Messrs. MacCarmick, Crawford, Captain Somers, Lieut.-Col. Bowes, Lieut.-Col. Mason, Mr. Barber, and S. Wharam, Leeds; Major Ellison, Harrogate; Major Pawlett, York; Major Geo. Whitehead, Batley, P. Deighton, Selby; J. McKinna, Huddersfield; H. Pollard, Wakefield; and H. M. Holland, Keighley.

*Minutes.* Mr. Wharam read the minutes of the last meeting, the Secretary being unfortunately absent from illness. Moved by Mr. McKinna that the same be confirmed. [Carried.]

*Apologies: Correspondence.* Apologies for absence from Mr. Locke, Dr. Bradley, and Mr. Clarkson.

*Resignation.* Mr. Tom C. Fletcher, of Sheffield, desired to resign his membership, owing to an accident which prevented him from getting about as formerly. It was unanimously decided to ask Mr. Fletcher to reconsider his resignation, as not only he but his father was an enthusiastic member of the Association, and old associations should not be severed.

The PRESIDENT rose and said he desired to record the loss to the Association by the deaths of two members, Capt. Thexton, R.A.V.C., of Pontefract, who died abroad on active service; and Mr. H. Snarry. He proposed that a letter of condolence be sent to the nearest relatives. Carried *sub silentio*, the members upstanding.

*Balance Sheet.* The Treasurer presented the balance sheet, showing a credit balance of cash at bank £28 8 4 and a reserve of £50 war bonds. Proposed by Mr. H. Pollard, seconded by Mr. S. Wharam, that the balance sheet be received and adopted. [Carried.]

Mr. MCKINNA said he thought the insurance of the bookcase and its contents too low, and proposed that it be increased from £50 to £150. Seconded by Mr. Philip Deighton. [Carried.]

The TREASURER reported on arrears of subscriptions. Resolved to refer matter to Council of the Association.

*Forthcoming Election of Council R.C.V.S.* A note was read from Mr. G. H. Locke, of Manchester, saying

he had been nominated for election to Council, and desired the support of the Societies.

The PRESIDENT said the Council of the Yorkshire V. M.A. had nominated as their official candidate Mr. S. Wharam, which action was confirmed by the meeting.

Mr. WHITEHEAD proposed they should join with other Societies, as in former years, to secure the return of their official candidate. Mr. Crawford seconded, and was supported by Mr. P. Deighton, and Mr. McKinna. [Carried.]

*Election of Officers.* Mr. McKINNA proposed that the present officers be re-elected *en bloc*. He said they had not had their usual complement of meetings, and they hoped now to return to normal conditions. Seconded by Lieut.-Col. Bowes, and supported by Capt. Somers. [Carried.]

Mr. S. E. SAMPSON the retiring President returned thanks for his re-election. He had been persuaded by the Council to accept office again, and hoped their Secretary would have better health. There was a great amount of work to do, and he should like the meetings more regularly as now members were returning to civil life they could attend better and all help with reconstruction.

The PRESIDENT introduced the question of insurance fees and read a letter, and asked for further discussion.

#### NORTH MIDLAND VETERINARY ASSOCIATION.

Dear Sir,—At a meeting of the Council of this Association held at Sheffield on February 18th, the question of insurance fees came up for further discussion, and I was instructed to inform you that the Council are recommending members of the Association to charge the following fees for inspection of animals for insurance companies.

A minimum of 5/- each animal up to £50 insured value, with a rise of 1/- per £10 up to £200. 6d. a mile one way extra to be charged if the distance travelled is over 3 miles.

I was also instructed to ask all veterinary surgeons residing within the radius of the Association to give a written guarantee that they would not examine animals for insurance companies for fees less than the above. It is only by combination that the fees paid by insurance companies can be raised, and seeing that animals are now greatly increased in value, and that consequently the insurance companies are receiving greatly increased premiums, the present seems the time to get such an increase.

I shall be glad therefore if you will sign the guarantee at the foot of this letter and return it to me at your early convenience. If I do not receive such guarantee I shall take it that you are not in agreement with the proposed scale of figures.—Yours faithfully,

J. S. LLOYD, F.R.C.V.S., Hon. Secretary.  
Town Hall, Sheffield, February 20th.

#### Guarantee.

I hereby agree to accept the above scale of fees for veterinary inspection for insurance companies, and undertake not to carry out any veterinary inspection for insurance companies at fees less than those mentioned in the scale.

Signature. Address. Date.

Mr. HOLLAND said the Insurance Companies will pay more if requested. He had obtained increased fees in many instances in that way.

Capt. SOMERS said it had been a scandal for years, and the fees should be raised, not only for examinations in insurance but in contracts. Some of the Railway Companies paid a ridiculously low contract price; everyone knew the extra cost of every thing; £1 was only worth about 9/-. The blacksmiths had raised their prices. All the companies were well able to pay more.

Mr. McKINNA: The charge per mile is not enough. I think 1/3 per mile one way, after the first two miles, and a minimum of 5/- would be reasonable.

Mr. BARBER: The minimum that I try to get is 7/6, with mileage in addition.

Mr. CRAWFORD thought 5/- minimum and extra for mileage, it could not be done under 9d. a mile.

Mr. WHARAM proposed the Association support the agitation for an increase in insurance fees paid to veterinary surgeons. Seconded by Mr. Deighton. [Carried.]

The PRESIDENT said the recommendations would be sent to the Association of Insurance Companies, London, which included all Tariff offices.

*Resolved*, on the suggestion of the President, to send a letter to the Secretary, hoping that he would soon be well again.

Mr. WHITEHEAD read a scale of fees recommended by a Veterinary Society. *Resolved* that the subject of veterinary fees and contracts be put on the agenda for next meeting; in the meantime the Council of Yorkshire V. M.A. to prepare a scale of fees for all classes of veterinary services, and present for discussion.

The PRESIDENT asked if there were any members wishful to report interesting cases.

Mr. POLLARD mentioned a case of gathered nail and open joint. After treatment had been proceeded with the discharge ceased, but lameness continued. The owner wrote Mr. Pollard to the effect that he had obtained a second opinion, but as the events were recent Mr. Pollard had not yet heard who the consultant was, but would report at the next meeting.

Mr. WHARAM recorded a case of simple fracture of the humerus. The animal, a 17 h.h. Shire mare, 5 yrs. old, bolted whilst the boy was throwing some manure off the cart, she went about 100 yards and fell over a low garden wall; was walked home, and was not very lame. The accident was on Feb. 13th; on Feb. 20th the mare was reported worse and the humerus was found to be fractured. There was no suspicion of a fracture when examined the day following the accident. The owner had exercised the mare, and said the lameness had improved. As the mare was slaughtered for the Belgians I am unable to produce the bone.

A vote of thanks to the President for his conduct in the chair concluded the meeting. The members present were entertained to tea by the Association.

#### THE DERBYSHIRE RESOLUTION.

Sir,—“Sceptic” has prescribed a useful affusion for application to the megacephalic assembly at Derby, in advising them to avoid suicide. How little can they know of their own value in the eyes of the show world—or indeed of the world of men and things, if they suppose that a business recognised as lawful, and with millions of capital behind it, can be suppressed by a fatuous attempt to upset agricultural exhibitions by abstention from the work of veterinary inspection.

If members of the profession had the instinct for combination so highly developed in miners, still they could be done without.

Disintegrating influences are at work, and no single act of our governing body has done so much to make strife and ill will, and create spies, snobs, and sneaks, as the passing of a rule forbidding advertising. By that self-denying ordinance we have thrown away the substance for the shadow. Where orders used to come in for draughts and drenches by dozens, and allowing good profit, we now dispose of nothing more than we prescribe for cases visited, because we have driven the “trade” into the hands of great firms with practically unlimited capital, and as a rule with a M.R.C.V.S. on the directorate. What rot it is to speak of quack medicines when our

grievance is that we are not the sellers of it ourselves. Who will tell us that he honestly believes that the veterinary medicines sold by reputable firms are not as well suited to owners needs as any we can dispense for stock purposes, and not specially for individual cases. If there is one such reader, what does he think of our leading lights in the Army, having to fall back on a proprietary dip after killing many animals with unsuitable dressings, and failing to deal with sarcoptic mange successfully until the said preparation was employed. So too with lice. None of our preparations will kill nits, and we had finally to adopt another proprietary preparation which does answer the purpose, and is safe for all animals. If a finance act puts a stop to building, it should be amended. If we have passed a bye-law inimical to our welfare, we should rescind it. The attitude of our Derby friends reminds me of a hen with one chick which I saw trying to drive a bull out of a paddock.

"FRA DIAVOLO."

#### A QUESTION OF PROCEDURE.

To the Editor of the "Veterinary Record."

Dear Sir,—At the meeting of the Council on January 10th last, the President ruled that when the vote was taken on the report of the Registration Committee, the names of the voters one way or the other were not to be recorded.

This means that members of the College are to be kept ignorant of how their representatives vote in important matters. Presumably the President was acting within his powers, but if he had any choice in the matter I cannot help thinking that he was ill advised.

Most of us would like to know how our representatives vote, in order to assure ourselves that our confidence has not been misplaced and to guide our decisions at future elections.—Yours faithfully,

Poona, India.  
Feb. 2, 1919.

G. K. WALKER, Lt. Col. I.C.V.D.

#### INSURANCE FEES.

I had the assistant manager of one of the large Insurance Companies staying with me a short time ago, and we were discussing the matter of veterinary fees. He stated that it was not the Companies' fault that the fees were so low, but our own fault, as he could produce a letter from a veterinary surgeon asking for their work at the present low fees; and that until veterinary surgeons combined so as to stop this writing for work at so low a fee we should never get better treatment, as the Companies were only willing to pay 10/-.

H. BIBBEY.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919 :—

	Mar. 18.
H. W. Brekke, Hull.	£1 1 0
J. A. Connell, Major, R.A.V.C.	1 1 0
H. H. Hide, Lower Edmonton,	1 1 0
T. Hodgins, Capt., R.A.V.C.	1 1 0
T. J. Kenny, Capt., R.A.V.C.	1 1 0
C. Pack, Lymington.	1 1 0
R. A. Philp, Brentwood.	1 1 0
J. Temple, Aberdare, Glam.	1 1 0
J. H. Wynne, Denbigh.	1 1 0
J. Stow Young, Capt., M.C., R.A.V.C.	1 1 0
Previously acknowledged	667 8 0
	£677 18 0

#### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND. 10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged :—

J. Aitken, Dalkeith	£1 1 0
E. P. Barry, Lt. Col. 2nd Life Guards	2 0 0
J. D. Bremmer, Valentia, Ireland	1 0 0
T. E. Burrage, Lt. Col. R.A.V.C.	1 1 0
G. A. Bushman, Islington	1 1 0
H. W. Caton, Mile End, E.	1 1 0
M. Clarkson, Satron, Richmond, Yorks	1 1 0
J. R. U. Dewar, Edinburgh	5 5 0
Jno. A. W. Dollar, London, W.	10 10 0
E. R. Edwards, Board of Agriculture	1 1 0
A. L. Farrant, Hove	1 1 0
W. J. Fletcher, Wrexham	1 1 0
W. F. Garside, Capt. R.A.V.C.	1 1 0
G. H. Gibbings, Tavistock	1 1 0
G. A. Harrison, Pluckley	10 0 0
G. H. Jelbart, Stow-on-the-Wold	1 1 0
J. Judge, Lieut. R.A.V.C.	1 1 0
L. W. Wynn Lloyd, Carnarvon	1 1 0
R. A. Philp, Brentwood	1 1 0
H. L. Roberts, Ipswich	5 5 0
W. M. Scott, Bridgwater	1 1 0
Sir F. Smith, K.C.M.G., C.B.	2 2 0
F. T. Stanley, Borough, S.E.	1 1 0
O. Stinson, Marden	1 1 0
J. Temple, Aberdare	1 1 0
J. Woodger, Chiswick	5 0 0
Midland Counties V.M.A.	10 0 0
	£60 10 0

#### ARMY VETERINARY SERVICE.

Buckingham Palace, Mar. 15.

His Majesty held an Investiture in the Ball Room of the Palace.

The following were severally introduced into the presence of His Majesty, when the King invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted :—

\* \* \* \*

#### THE DISTINGUISHED SERVICE ORDER.

Lieut.-Col. Victor Leckie : Major Reginald Mellard.  
War Office, Mar. 13.

The King has been pleased to confer the Territorial Decoration upon the following officers of the Territorial Force who have been duly recommended for the same under the terms of the Royal Warrant dated Aug. 17, 1908, as modified by the Royal Warrant dated Nov. 11, 1918 :—

\* \* \* \*

Maj.(actg. Lt.-Col.) E. M. Perry, F.R.C.V.S., Maj. R. L. Green, Maj. F. J. Taylor.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Mar. 15.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Maj. J. J. Griffith, D.S.O., retires on ret. pay (March 16), and is granted the rank of Lt.-Col.

Maj. J. J. Griffith, D.S.O., relinquishes the actg. rank of Lt.-Col. (March 2).

Temp. Capt. G. C. Harding relinquishes his commn. on account of ill-health contracted on active service (March 16), and retains the rank of Capt.

Mar. 17.  
The grant of the temp. rank of Lt.-Col. to Maj. A. J. Thompson, notified in *Gazette* Dec. 1, 1917, is ante-dated to Aug. 14, 1916.

Mar. 19.  
Capt. C. Tracy is placed on ret. list on account of ill-health caused by wounds (March 20).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Mar. 13.  
Capt. F. W. Pawlett to be actg. Maj. whilst holding the appt. of D.A.D.V.S. (March 1).

#### The R.A.V.C. Comforts Fund.

Subscriptions and gifts to the above Fund will not be received after March 31st. The Committee wish to thank all who have so generously assisted in making the Fund a success: and to express the thanks of the N.C.O.s. and men of the Corps for the many comforts they have received.

E. A. BLENKINSOP, Hon. Sec.  
29/7, Bramham Gardens, S.W. 5.

#### OBITUARY.

JOSEPH PEARS, Penrith.

H. & A. S. 1860. Graduated Edin: 22nd Nov., 1879.

The death occurred at Wigton on Thursday, 13th March, of Mr. Joseph Pears, formerly of Penrith, one of the oldest and best-known veterinary surgeons in Cumberland. Deceased, who was in his 91st year, obtained his certificate in 1860, and commenced practice in the Penrith district. At the time of the dread cattle plague (Rinderpest), which ravaged the country in 1866, he was one of the chief veterinary inspectors for Cumberland and Westmorland; he also took a prominent part in helping to stamp out outbreaks of foot-and-mouth disease. He served a year as President of the Border Counties' Veterinary Medical Association, and in 1889 was appointed veterinary inspector for the Penrith Urban District. Some years ago he took into partnership his son-in-law, Mr. T. Bowlas, Penrith, and practically retired from active professional work in 1907. Mr. Pears celebrated his golden wedding in 1911, and his wife died in January last.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.									
	Dogs	Other Animals	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		(a)	Slaughtered.								
														Cases	Animals	Animals	Animals	Animals	Animals	Animals	Animals
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)								
Gr. BRITAIN.																					
Week ended March 15																					
Corresponding week in																					
1918																					
1917																					
1916																					
Total for 11 weeks, 1919																					
Corresponding period in																					
1918																					
1917																					
1916																					

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, March 18, 1919

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND. Week ended March 8		...	...	...	...	1	1	Outbreaks	7	3	4
Corresponding Week in		1918	...	1	1	...	...	1	4	1	3
		1917	...	...	...	...	...	2	6	7	39
		1916	...	...	...	...	...	...	12	8	36
Total for 10 weeks, 1919		...	...	...	...	1	1	35	98	12	42
Corresponding period in		1918	...	1	1	...	...	38	123	4	99
		1917	...	2	2	...	1	9	137	42	277
		1916	...	1	5	...	...	18	154	44	141

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, March 10, 1919

IRELAND. Week ended March 15		...	...	...	...	...	...	Outbreaks	5	1	5
Corresponding Week in		1918	...	...	...	...	...	3	8	...	...
		1917	...	...	...	...	...	2	8	7	33
		1916	...	...	...	...	...	...	7	5	60
Total for 11 weeks, 1919		...	...	...	...	1	1	38	103	13	47
Corresponding period in		1918	...	1	1	...	...	41	131	4	22
		1917	...	2	2	...	1	11	145	49	310
		1916	...	1	5	...	...	18	161	49	201

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, March 15, 1919  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1603.

MARCH 29, 1919.

VOL. XXXI.

## BROKEN WIND.

Some useful discussion of this subject took place at the recently reported meeting of the V.M.A. of Ireland. Not a little information was gained; and the important truth that we have yet much to learn regarding broken wind itself, the methods of temporarily concealing its symptoms, and the still more imperfectly understood conditions which may occasionally be mistaken for it, was well brought out.

There has always been much mystery about the practice of "setting" or "stilling" broken winded horses. Probably there are still some clinicians who doubt its possibility, and perhaps a few who even deny it. Most, however, are now agreed that the thing can be done; but many are more or less vague as to the methods of doing it. We have now more assured scientific information on the subject than we once had; but there is still much to be learned.

Reitsch's experiments at Budapest have shown us one method of "setting" and given us some hints for its detection. We now know that the administration of leaves, roots, or seeds of plants containing atropine will effectively "still" broken-winded horses, reduce the frequency of respiration, and also abolish its double period and forced character. The affect appears after fifteen minutes and lasts a whole day, after which the dyspnea returns with increased severity. Other effects of this method are that the horse shows dilatation of the pupils (and sometimes visual disturbances also), a considerable increase of the pulse-rate, and, in the first hours after the administration of the drug, great dryness of the buccal mucous membrane. The mouth is usually rubbed with fat to mask the last symptom. These points are valuable for the detection of this particular method; but we do not know whether it is as common in the United Kingdom as on the Continent.

Numerous other agents are known or believed to be used for the same purpose. Shot, fat, laudanum, antimony, and aconite are examples; and another, the combination of paraffin and linseed oil, mentioned at the Irish meeting, is perhaps not so widely known. Some of these are probably more or less effective, and all may be; but it is doubtful whether any would be so easy to detect clinically as the atropine method. It is difficult to understand how some of them can produce whatever effects they have upon the condition; and the difficulty is increased by our lack of knowledge as to the pathology of the disease and the mechanism of the production of its symptoms. The commonly accepted view—an old one, regards the pathology as that of chronic pulmonary emphysema; but there is much evidence to make us doubt whether that explanation covers every case.

Probably most clinicians who have thought much upon the subject agree with the opinion expressed at the Irish meeting—that more than one pathological condition may cause the characteristic symptoms, and that these are commonly classed together as "broken wind." The question next arises whether all or any of the various "setting" methods are equally effective in all cases; for that they are so is by means a certainty. Almost every point connected with broken wind requires further and systematic investigation. Some of the work could only be properly carried out by pathologists; but a great deal, including the most important practical question of the effect of drugs upon the symptoms, could quite well be done by clinicians.

This subject suggests amusing reflections to those who remember the dogmatism of some practitioners of old days. As a rule, no case is easier of diagnosis than a well developed one of broken wind; and on that account many "practical men" have been able to persuade themselves that they know all about it. Yet, if we examine the extent of our present knowledge of this classic disease, we find that in reality there are few animal ailments which are at once so widely recognised and so little understood.

## Royal College of Veterinary Surgeons.

### EXAMINATION COMMITTEE.

A Special Meeting of the Examination Committee was held at 10, Red Lion Square, on Friday, March 21st, mainly for the purpose of dealing with applications from ex-service students and other matters.

The President reported the arrangement which had been arrived at with the Ministry of Labour with regard to the award of Maintenance and Training grants for Veterinary students. The Veterinary Profession has now been placed with other professions for which training grants can be made in all approved cases, without further reference as to the suitability of the Profession as a sphere of training.

Applications from ex-service Officers and men, both those whose course of study has been interrupted, and those who desire to commence the course, must be made out on Army Form Z 15, which can be obtained from the District Directorates of the Ministry of Labour, Appointments Department. A space marked "Training Required" is provided on the back of the form, and the applicant must state here his claim for financial assistance, in order to enable him to complete the course for the diploma of M.R.C.V.S. The form must then be sent to the District Directorate for the applicant's home district, from where it will be transmitted to the Grants Committee, Ministry of Labour, and it is hoped that in urgent cases a decision will be arrived at without much delay.

A full report of the meeting will be presented to the Council at the Quarterly Meeting in April.

## THE CENTRAL VETERINARY SOCIETY.

(NATIONAL V.M.A.—SOUTHERN BRANCH).

A meeting was held at 10, Red Lion Square, W.C., on Thursday, March 6th, Prof. Wooldridge in the chair.

The minutes of the last meeting having been confirmed, Mr. J. B. Buxton asked permission to make a statement.

On the motion of Mr. J. Willett seconded by Mr. Slocock, Mr. Buxton was allowed to make the following reference to the criticism of Sir John M'Fadyean which had appeared in the veterinary press with regard to his paper on "Coccidiosis in the Rabbit" read at the last meeting of the Society:—

Mr. President and Gentlemen—I should like, with your permission, to make a brief reference to a criticism which has appeared in the Veterinary Press of my communication to this society on "Coccidiosis in the Rabbit." The criticism was furnished by Sir John M'Fadyean, who took upon himself "a very uncongenial task," lest readers abroad should infer that "the study of coccidiosis in this country has been sadly neglected." It is not necessary or proper that I should inflict upon you my personal feelings with regard to the attitude which it has pleased Sir John to adopt, and I therefore confine myself to the mere mention and, if you wish, explanation of the various points which were raised. I owe this to you and also to myself.

When I compiled these few notes my intention was to summarise well known facts, facts which were presumably known to many of you who were present, and moreover facts which could be verified by reference to almost any text book on bacteriology.

This applies to the life history of the parasite, an exhaustive description of the various phases of which, however, I did not profess to enter into, and hence my suggestion that "some knowledge of the manner of reproduction was essential." This summarising and also possibly a certain looseness of expression of which I may have been guilty, appear to have laid me open to criticism. It was however practically an impossibility for any man possessing such a knowledge of the subject, as Sir John undoubtedly does, to have innocently misread those statements. The first impression which was created in my mind by Sir John's letter was that the views he held concerning this disease differed from those usually expressed and mentioned by me.

In reply to my letter however Sir John accused me of dishonesty in forming this opinion and again of a lack of knowledge of the subject. If there has been any dishonesty of action or thought—I submit that I certainly am not the guilty party. When I said that under certain conditions "the oocysts divide into two and then into four spherical bodies called sporoblasts," I may have been guilty of some looseness of expression. Had I said that there was a double nuclear division and four extrusions of the cell protoplasm which later became four spherical bodies called sporoblasts, I should perhaps not have laid myself open to such a virulent attack on that particular point.

Lest however, my original rendering should be considered a criminal misrepresentation of the actual facts I would refer you to Prof. Hutchins statement (Practical Bacteriology, Microbiology and Serum Therapy p. 762).

"If a number of oocysts be placed in a few drops of sterile water in a Koch's cell and kept at a temperature of 15-18 °C their contents will be seen in the course of two to three days to divide into two and later into four small spheres or sporoblasts."

With regard to my statement that "if a rabbit ingests such a cyst the wall becomes dissolved and the sporocysts are liberated, these in turn rupture and set free the sporozoites," and Sir John's criticism that "since the publication of Metzner's observations it has been known

that the wall of the oocysts does not become dissolved, that the sporocysts do not burst, and that the liberation of the sporozoites takes place without either of these things happening." Since Sir John has definitely stated that his criticism is based upon accepted facts it is unnecessary for me to mention differences of opinion which are held to-day by protozoologists regarding Metzner's observations, and I will therefore confine myself to the statements made in existing text books, and on this ground I contend that Sir John's criticism is the merest quibble.

Sir John has undoubtedly observed this phenomenon and he knows that as a result of the action of the duodenal juice, or even of commercial preparations of trypsin, upon the ripe cysts the sporozoites break and wriggle through the membrane covering the somewhat conical end of the sporocysts and leave the oocyst through the membrane at the flattened pole which has presumably been prepared by the action of the duodenal juice.

The method of expressing this phenomenon varies but little. Hutyrá u. Marek (Spizuelle Pathologie und Therapie der Haustiere page 716) state that "After the ingestion of the oocysts the outer case is dissolved (Aufgelöst) by the digestive juices more particularly the pancreatic juice."

Hutchens says (p. 762) "the capsule is digested and the sporocysts are set free." Buchanan (Veterinary Bacteriology) describes the formation of the sporozoites and their "liberation by a rupture of the cyst." It appears to me therefore that it is quite unnecessary for Sir John to have laboured this point. Sir John cannot be reproached for his adverse criticism of my drawing, since my statement that it was a rough representation of the life cycle of a coccidium was not published.

Sir John said further—"Mr. Buxton evidently does not know that macrogametes do not possess a micropyle, the thing so named being only seen in the oocyst." This is a most unwarrantable assumption. It is strange in view of this statement that Prof. Hutchens (p. 763) describing the structure of the macrogametes says "the granulations pass to the periphery, fuse and form an enveloping membrane, pierced at one end by an orifice, the micropyle." I am perfectly well aware that the thin portion of the membrane covering the flattened pole of the oocyst is called a micropyle and I am also aware that a similar spot on the wall of the sporocyst receives the same name although Sir John fails to mention this fact and indeed says "the thing so named (the micropyle) being only seen in the oocyst." If he doubts my statement I would refer him to Kolle in Wassermann (Handbuch der Pathogenen Mikro-organismen Bd 7 p. 716.)

Sir John challenges the statement that "a single male element penetrates the female cell at the micropyle, which then closes." I stated what I believe to be an accepted fact. I have not observed this fertilisation process myself, probably Sir John has been more fortunate.

The following is a translation from Hutyrá u. Marek (page 517.) "After the numerous microgametes become free they penetrate (eindringen) the macrogametes and fertilise them" and the following translation is from Kolle and Wassermann (p. 715). "A microgamete enters a macrogamete as in the case of E. Schubergi and the nuclei coalesce, while the penetration of the other microgametes is prevented by the excretion of a slimy substance," (page 713) "the microgametes swarm round macrogamete and one of them enters a protuberance for its reception after which a membrane forms upon the surface." Hutchens states (p. 764) "the mature macrogamete attracts the microgamete by chemiotactic influences, a single microgamete penetrates the female cell at the micropyle and as soon as it has passed into the macrogamete the micropyle closes behind it."

Further comment is unnecessary. Sir John contends that my description of the lesions is "equally inaccurate."

He asserts that "Abscesses are never formed in the liver in cases of coccidiosis in the rabbit." Such a quibble is unworthy of Sir John. These areas are commonly referred to clinically as abscesses, although they might more properly be described as abscess-like cysts.

Lastly, Sir John states that "the bile ducts do not become more branched and the connective tissue does not become hypertrophied, nor does it produce either venous congestion or atrophy."

I am still of the opinion that these changes may occur and in support of my contention I may quote Ostertag (*Hand-book of Meat Inspection* (p. 522.) "Later, a marked hyperplasia of the epithelia and a papillary proliferation of the bile ducts arise, so that these structures do not represent simple canals, but much-branched cavities." Jordan, in his *General Bacteriology* (p. 461) says "in these animals (i.e. rabbits) it evokes cirrhotic changes and other chronic inflammatory processes." Again, according to Wasielewski, quoted by Kolle and Wassermann, the liver becomes enlarged up to one-sixth of the body weight, instead of one-twentieth which is the average. Hutchens states (p. 760) "The biliary canals are dilated and the connective tissue hypertrophied, compressing the blood vessels and leading to atrophy of the liver substance." Many pathologists of repute appear therefore to be of the opinion that such changes may occur.

Gentlemen, that is all I have to say. I leave you to form your own opinion as to whether I have misled you, have been dishonest, or have shown a lack of knowledge of the subject—of all of which actions I have been accused—or whether I have been wronged. It seems to me to be regrettable that Sir John should have considered it necessary to employ a howitzer for the purpose of wounding a sparrow.

**Fellows Present.** The following Fellows signed the attendance book, Messrs G. P. Male, H. D. Jones, H. King, J. B. Buxton, H. J. Parkin, J. W. McIntosh, J. Willett, F. W. Willett, S. H. Slocock, W. N. Thompson, G. Upton, W. Perryman, Prof. J. Macqueen, Capt. J. F. Macdonald, R.A.V.C., and Capt. J. T. Angwin, R.A.V.C. Visitors, Dr. R. T. Leiper, and Capt. Higgins, R.A.V.C.

**Correspondence.** Letters were received from Messrs W. S. King, F. G. Samson, T. S. Price and N. Almond, regretting their inability to be present.

**Nominations.** The following gentlemen were nominated and will come up for election at the next meeting, Mr. Herbert Cyril Price King and Capt. Higgins R.A.V.C.

#### MORBID SPECIMENS.

DR. LEIPER, who attended the meeting at the President's invitation, produced specimens which he said he thought would be interesting to the members, particularly since the last discussion had concerned some of the diseases of the rabbit. He had noticed that in the discussion on Mr. Buxton's paper at the last meeting one of the speakers had referred to a condition in the rabbit which was apparently not due to coccidiosis but which might be of bacterial origin. During the last year there had been a great deal of public interest in the rabbit, and there had been a great mortality among rabbits. During the summer a large number of rabbits especially young ones, had been sent to him suffering from diseases of the liver which were supposed to be due to "globe" worms. He had found that a great number of these young rabbits had died of coccidiosis, but towards the end of September another condition began to appear. In older rabbits which were supposed to have died of coccidiosis, he could not find lesions of that disease. The small intestine was intensely inflamed and congested—

so markedly so that at first he had written to one or two correspondents and had said that he did not know the cause of death. There were no worms and there were no coccidia, and he feared that perhaps the matter was due to bad feeding; and he had directed the people to consult local veterinary experts on the subject. He afterwards found that that intense inflammation of the intestine was in many cases associated with an extraordinary "pepper-and-salt" appearance in the liver and also in the spleen, that the lungs were sometimes consolidated, and that it was really a septicæmia, and the specimens when fresh showed the little abscesses and necrotic areas very plainly. This septicæmia of rabbits had practically displaced the coccidia as a rabbit disease since the beginning of the winter. The spleen was extraordinarily enlarged. In some cases the small intestine, instead of being congested, was actually necrotic and of a wash-leather colour. The disease also attacked old rabbits. Quite large healthy rabbits succumbed in a few days. He had received specimens from all parts of the country. The following symptoms had been described by a lady correspondent, who was a very good and accurate observer, and who took a great interest in bacteriological work. During the summer she had reared a lot of rabbits for distribution, and had had big losses with coccidiosis; latterly she had noticed that the symptoms were not the same in all cases and had asked him to look into the matter. She wrote "The symptoms are the same in each case—first an attack of violent diarrhoea, which goes off in a day or two, followed at varying intervals by loss of appetite, extreme dullness of appearance and behaviour. The victims of coccidiosis, on the other hand, have excellent appetites up to the last, and generally die very suddenly, the only outward previous symptoms being more or less wasting, and in the case of youngsters retarded growth." Professor Hewlett had kindly examined the preparations, and had reported that the lesions were due to "one of the rabbit septicæmias." It was very similar to plague but there were some cultural differences.

The specimens exhibited by Dr. Leiper consisted of portions of liver, spleen, and intestines of an affected rabbit, and also microscopic sections of the lesions.

The PRESIDENT remarked that he did not remember having ever met with the condition, although he had seen quite a lot of diseased rabbits during the past year. He had had, however, very few submitted to him during the winter; he did not recall having had one in the past three months. He thought Mr. Thompson had been responsible for bringing the matter forward. He thanked Dr. Leiper for having exhibited the specimens.

MR. THOMPSON said the cases which he had referred to were those which had occurred in caviae. In that instance, he could not find anything on post-mortem but enteritis, and he had since come to the conclusion that that had probably been due from bedding them on sawdust with cresote, because all those cases had arisen the day after they had been re-bedded with fresh sawdust, or rather, with sawdust taken from wood which had been impregnated with cresote. The other organs were perfectly healthy, and the caviae showed no evidence at all of illness until 3 hours before they were dead. The deaths occurred at different times, and there seemed to be no connection between the three occurrences, and there had been only one affected on each occasion.

MR. MALE remarked that the lesions rather resembled those of bacterial necrosis which affected a very large number of animals.

DR. LEIPER said he personally could not pretend to give an expert view about the matter. If any fellow of the Society was interested in the matter he would be glad to hand over the material.

## THE SITUATION OF VETERINARY POLITICS.

By Mr. J. W. McINTOSH, M.R.C.V.S., F.R.S.E.

Mr. McIntosh said that having yielded to the philosophical persuasion of the Secretary, he found himself in the rather perilous position of opening the discussion on "the situation of veterinary politics." There could be no question as to the importance of the political aspect of the veterinary profession. The war happily was ended, and although it had brought much material and mental suffering, it had aroused the world into a state of national activity. It had opened up fresh avenues of fresh thought and action, and it behoved the veterinary profession and all organisations to see that they were in the van of progress. He would endeavour to put before the Society as far as time allowed a few points which, in his opinion, retarded progress and efficiency in a scientific sense and also those which raised or depressed the profession in popular esteem. Those of the members who had seen a little, thought a little, and felt more, must have observed the absence, in this country at any rate, of any tangible reward for purely scientific merit and scientific work. There was no external inducement to real exertion. What was the reason? He would ask the members for the moment to lose sight of minor points, amiable weaknesses and individual peculiarities, and ask themselves the question, whence had they come and whither were they going? Did they as a body occupy that position in the scientific and social world which they ought to occupy, and if not, why not? Were they content to run along on the old lines, and adopt a "wait and see" policy? Surely not.

He thought the first and perhaps the most important point was their position from the educational standpoint. Was the public aware that veterinary education in this country was almost entirely a matter of private enterprise, and did it fully realise the consequent insecurity of its foundation? Practically every department of education had been made matters of national concern, whilst the veterinary profession, which played such an important part in maintaining the life and wealth of the nation, was almost in a state of bankruptcy. Surely the profession had established a claim on the public purse. Unless the veterinary colleges were properly subsidised there was a probability of a breakdown in the whole present scheme of teaching. The position was serious, and if something is not done to foster the progress of veterinary education and veterinary research, the profession is bound to suffer, and as a result the country.

The next point was the profession's position so far as Government recognition and employment were concerned. Was the profession to remain as a graded division of agriculture? At present it found itself subservient to laymen and others who enjoyed privileges which undoubtedly the veterinary profession was entitled to. Were they to submit to the dictum of other departments, lay or expert? No other man, professional or lay, could possibly take the place of the trained expert in veterinary matters, and the profession and the public should see to it that he did not. It might be claimed that the duties of an inspector under the Contagious Diseases (Animals) Acts were inseparable from those of agriculture. But were they? Who said so? Not the profession, he thought. The only duties they had in common were those of watching over the interests of the stock owners and the welfare of the public. Circumstances would arise where consultations might be necessary, but each would have his duties to attend to. For an agricultural expert or any other expert to control or supervise the work of veterinary surgeons was injurious to the best interests of the country. The Chief Veterinary Officer ought to be the head of his department, and directly responsible for the work of his department to a Minister of the Crown.

A word about the New Ministry of Health Bill. There was little doubt that if properly constituted and honestly administered it ought to be productive of the greatest good. Were the profession sufficiently alert and watchful with regard to their interests in that direction? It had to be noted that the sister profession was carefully watching the progress of that Bill, but he was unaware of any action on the part of the veterinary profession. It was possible that the Council might be doing something in the matter. If so it was a pity that more publicity was not given to their deliberations and findings. If the profession was to negotiate effectively with regard to State recognition and employment they must organise on a solid and democratic basis, and if they were to enforce their rights and independence they must take no subservient position. They were quite entitled to enter into a compact for that purpose and to counsel all members of the profession to join together and withhold their services—if there was no other way of obtaining redress and of drawing public attention to their grievances: in other words, they must strike.

Another point which was exercising the minds of many was the question of part-time inspectors. The present system of appointing certain men for certain districts was, in his opinion, most unfair. It was not economic, and it was not calculated to bring about the best results. Unless it was clearly shown that a man was incompetent, every veterinary surgeon ought to be in a position to carry out the work connected with his own clients. He saw no reason why that man should not be in the same position as a medical man. Surely the profession did not consist of such a degraded lot that only a man here and there could be found capable of carrying out work of this kind. It was distinctly unfair that a country practitioner should have a neighbouring practitioner come to his clients to carry out the provisions of the Order. It gave that neighbouring practitioner an air of superiority in the eyes of the public—a sort of stamp of approval, as it were, by the local authority of the district. He was in favour, therefore, of doing away entirely with the part-time inspector, and appointing whole-time veterinary officers.

Might he venture to criticise for a moment the constitution and policy of the Council. He was sure everybody appreciated very highly the efforts of the Council. They did their best according to their lights, if their best was not good enough the profession had perfect right to say so. He had had some experience of public life and he knew what a thankless task it was, but any man who served in a public capacity, or in a semi-public capacity, must be prepared for criticism. It is only right that he should be criticised; it was a healthy sign of the times, and it was productive of good. So long as criticism did not descend to personalities, it was perfectly fair and reasonable—in fact he thought that the man who had never been criticised had done nothing worth remembering. It appears to him that the Council as at present constituted, was not sufficiently democratic. It was not sufficiently representative of the general body of the profession. Its policy seemed too much taken up with examinations, etc., and too little taken up with the scientific status and welfare of the profession itself. He was inclined to agree with the expressed view that the veterinary schools were over-represented. That was partly due to the fact that there were too many schools, and to the present system of elections. He thought to remedy the matter and to rouse the interests of the general body of practitioners was to have district representation. Why was it two-thirds of the profession took no interest at all in the work of the Council; simply because the present system of electing representatives was neither satisfactory nor equitable, and the majority of the Council were unknown to the profession. Some years ago he allowed his name to go forward as a candidate for Council honours. He had been generously

referred to (at that time) as a man unknown outside his own parish. Well, he contended that the man who was honourably known in his own parish and who had the respect and confidence of those around him was a man who was likely to carry with him into the Council chamber the interest of that district, and in that way the interest of the whole profession would be directly and democratically represented.

What was being done to watch the interests of their "Colonial Colleagues?" He was rather afraid very little. It was only right that such men should have a representative on the Council—not necessarily a colonial, but a representative elected by them, who would be able to submit their grievances, if any, and watch their interests. The conditions prevailing in the Colonies were not identical, therefore direct knowledge would be valuable.

He was not quite sure whether he agreed with the system of a man being elected to the Council for four years—he thought it too long.

Another point which he would like to mention was that of Fellows only being eligible as examiners. Surely no one seriously contended that a Fellow was any more qualified to act as an examiner than a member. It should be open to the whole profession to apply for examinerships, and appointments made on their merits.

Then there was a question very near to all of them in connection with demobilisation. It was beyond question that the home-coming of officers who had served several years in the Army would be fraught with many difficulties, both financial and professional. Those difficulties would vary according as to whether the man had been previously in practice or whether his civilian career lay before him. In the former case it would depend upon the kind of practice in which he had been engaged. No two cases could be quite alike, but the man who had a whole-time appointment awaiting his return, and the man whose interests had been safeguarded by an active partner needed little or no assistance. On the other hand, many a single-handed general practitioner might be looking forward with dread to beginning life again as the result of his prolonged absence. All know how elusive the goodwill of a private practice is. Even the utmost loyalty of their colleagues would not avail to keep together a man's *clientele* during four or five years' absence. Everybody would sympathise with a man who had given up everything to risk his life for his country, and it behoved everybody in the profession, in every possible way, to help in re-establishing those men to rise again to at least their pre-war level. Some members were already attributing loss of practice to the negligence, or worse, of their colleagues who had remained at home. That might be true in a few cases, but he would refuse to believe it of the general body of practitioners. In conclusion he urged the members to keep together and whilst each one might have his bias or tendency of thought, all had a common interest in the profession and ought, no matter how little it might be—even moral support is helpful—to contribute their mite to the treasury of knowledge, and so far as it lay in their power help to advance the interests of the profession to which they belonged. There must be no spasmodic effort. A united front and persistent effort—with no turning back, is what is wanted. If our position has been unsatisfactory in the past, do not let us be deprived of the future and "If at first we don't succeed, try, try, and try again."

Mr. UPTON desired to know how it was possible to legislate for a profession which had no legal *locus standi*. He viewed the matter from the point of view of the general practitioner, who was entirely dependent on the charity of stock-owners (murmurs of dissent). Mr. McIntosh might say that the profession ought to do this, that, and the other, but they had no hold on their clients

or on the country. Were they justified in creating professional agitation when a quack could take their positions? At present the profession did not attract men of birth and education. He had had it thrown up against him that his position in life as a veterinary surgeon was not good enough. Parents and guardians who placed their children or wards into a profession expected to get a return for their expenditure in the matter. The Diploma of the Royal College was not a guarantee of a living to the general practitioner. The training of the colleges did not altogether fit a man to earn his living. The profession was in the condition in which it was 50 years ago. It might be run as a side-line to a forge, or a farm, or a publican's business, but for a man to depend on it for a living he had to run it with something else. Under such circumstances was it to be expected that men of birth and education would be attracted into the profession?

Mr. MALE said he heartily agreed with and endorsed most of Mr. McIntosh's speech; but Mr. McIntosh had only dealt with one side of the question of part-time inspectors. As a part-time inspector himself, he (the speaker) might be allowed to put the other side of the question. The general idea seemed to be that if an inspector went to another man's client, that client immediately put his arms round the inspector's neck and adopted him as his veterinary surgeon. That was not the case. The fact was exactly the opposite. He would take swine fever as an example. The inspector had to attend the pigs usually belonging to a small holder, and probably did not see the owner at all. The inspector had to put the owner under restrictions, kill his pigs, do all sorts of things which the man objected to, and he never wanted to see the inspector's face again. Then in cases of mange, the probability was that the local inspector would not be called in. The owner would prefer to employ another veterinary surgeon. He (the speaker) had experienced that if a man had a horse which had symptoms of mange he would employ someone else than the local inspector to examine it, in the hopes that he would not find it necessary to call it a case of mange, and be put under restrictions and stop the work of the horse. The local inspector was the last man to be called in.

With regard to the finances of the profession, he did think it was absolutely deplorable that they had got into the condition in which they were. Some time ago he had gone round to one of the colleges, a college which was well known all over the world, for its good work, and for the splendid men who had taught there, and he had found that the teachers worked under most depressing conditions. They were very poorly paid, the laboratories were in a wretched condition, the appliances were not half what were required, and they had not the examples wherewith to teach the students. That was in a country which boasted of being the finest agricultural country in the world. The financial position of the Royal College was equally bad, or worse, and was fast going towards bankruptcy. Could not something be done? He did not know whether it was the fault of the Council. He had the greatest respect for the Council. He believed they did what they could, but surely there must be some way out of it. The veterinary profession was a very small one, and could not depend on the fees of the students to keep the education of the students up to the proper standard. Therefore it must have State aid for its colleges. Whether it was the duty of the Council to see to that or not he did not know, or whether they were trying to do it he did not know. If it was not the duty of the Council, then it must devolve upon the members to educate the public and to educate agriculturists, to the interests of the profession. Agriculture had been promised help for research work, and he did hope they all would do their

best to obtain sufficient funds for the veterinary profession, so that its students could be educated properly, and its lecturers and scientists paid equitably so that advance could be made accordingly.

Prof. MACQUEEN said he was exceedingly disappointed with Mr. McIntosh's remarks. Mr. McIntosh had mentioned some five or six points which apparently he regarded as grievances, but he had not suggested a single remedy. He did not even give a concrete case to support his grievances. What suggestions did Mr. McIntosh make except generalities which any man in the street could utter without knowledge of the profession? What was the present undercurrent of unrest in the profession? Was it a veterinary variety of Bolshevism? He (Prof. Macqueen) should say from his observations during the last few months that the spiritual home of that variety of Bolshevism was in Reading, and that the first gas shell had been sent over by his friend Mr. John Willett in December last. Since then there had been a few further attempts made to stir up agitation about the welfare of the profession, but the indictment had never got beyond generalities. He had not heard or read since the agitation began of a single well supported complaint regarding the welfare of the profession. The veterinary profession no doubt had suffered, and was suffering, like every other calling, and it was bound to suffer, but the remedy lay with the individual. It was useless to appeal to the Council. The Council had no power to look after the welfare of the members of the profession. It looked after education, and the conduct of the profession, but it had no means of supplying brains and ability, perseverance and assiduity. That was altogether outside its province, and for members to indulge in innuendoes, insinuations and general complaints against the Council was a waste of time, and it was worse than that, it was most ungrateful after the period through which the profession and the Council in particular had passed. Instead of grumbling round a table, members would be better employed in promoting a testimonial to the present President of the Royal College of Veterinary Surgeons, Mr. Garnett. There had never been a better President, and no man in the profession had devoted himself so continuously and energetically to its interests.

Mr. MCINTOSH said there had been no personal attack made upon Mr. Garnett.

Prof. MACQUEEN said he did not say there was any personal attack. There was a general complaint about the constitution and policy of the Royal College of Veterinary Surgeons. He maintained there was no ground for complaining about the behaviour of the Council. The only remark of Mr. McIntosh's with which he agreed was in reference to district representation. There was no doubt that if the profession as a whole was dissatisfied with the present members of the Council, the proper method was to return men who would give them satisfaction. How was that to be obtained? If it could not be obtained under the present Charters or Regulations of the Royal College, there was no power to enforce district representation. But there would never be what might be called a popular Council until the electors were able to return District representatives.

Then a complaint had been made with regard to Government recognition and Government grants. Did not the Government grant something to the colleges at the present time? ("Very little.") Was not there something more than an ordinary grant given to the Dick College? Was not there a grant given to the Glasgow College? What about the Irish school, which was said to be under Civil Service regulations? Was not it entirely a Government institution. Was not that Government recognition? What was wanted was a little more of that recognition, but he failed to see how any alteration was going to be brought about by simply shouting at the Council. What was required was propaganda

work. The members of the profession must be stirred up. Something had been said about educating the public. That was a very old-fashioned wheeze. The profession might try to educate the public, but it must first of all induce its members to take an interest in itself. Mr. McIntosh had acknowledged that two-thirds of the profession took no sort of interest in its welfare, and how were they going to be altered in this respect except by propaganda work?

With regard to the point that only Fellows could be appointed examiners, he believed the main reason for that was not because of any supposed distinction in brain power, but because of a belief that it might induce members to become Fellows. It had been thought that by restricting the appointment of examiners to Fellows it might induce more men to take the degree. The origin of the Fellowship was brought about by financial anxiety and only partly by a desire for a higher diploma.

He saw no reason for any very extraordinary agitation regarding the welfare of the profession, and certainly he saw no ground for attributing its present state to the Council, or hoping for its improvement from any action on the part of that body, unless its powers were enlarged, and that involved a new Charter, which would cost money. The profession would not be able to get much done by the Royal College of Veterinary Surgeons in its straitened circumstances. There was however, another body which might have far more influence in the matter of monetary improvement, and that was the National Veterinary Association. But that Association apparently was not much better than any other association in connection with the profession. Its membership was too small. To the last day there would never be unanimity in the veterinary profession. It was a profession with its initial too near the end of the alphabet. It was too close to X Y Z, and it would always remain in a condition of uncertainty.

Mr. J. WILLETT said he had every respect for the members of the Council, but as a whole they kept the profession too much in the dark. It was the secrecy of the Council which had caused and was causing the unrest in the profession at the present time. They might be moving in regard to the Public Health Bill, and watching the profession's interests, but the ordinary members were quite in the dark about it. It was time to abolish that system. The members wanted to know was being done. The sister profession was going strongly ahead, and would probably be strong enough to carry what they wanted. The question was, was the veterinary profession strong enough to go to the Ministry of Public Health and demand to have a part in it? He would like to know what the Board of Agriculture had done for the veterinary profession. He ventured to say that the profession had done far more for the Board of Agriculture. He quite agreed with Mr. McIntosh that the time had come when there should be a veterinary officer of health for every county. He strongly maintained that the veterinary surgeon's place should be in the Public Health Department, and not under the Board of Agriculture. Providing that veterinary officers of the Board of Agriculture still remained, they should be directly responsible to the Minister of the Crown, and not subjected to lay control. He also fully agreed with the idea of district representation, and he would like to see the Charter altered so that district representation could be brought into effect. He also agreed that it should be open to members of the profession to be examiners. If it was such a high honour to become a Fellow, why were not some of the profession's most able and scientific men Fellows of the R.C.V.S.? The Principals of the majority of the colleges were not Fellows. Then the Council in view of the repatriation of men should form an Intelligence Department.



The PRESIDENT said that such a Department had been formed.

Mr. WILLETT said he knew there was a Register kept at the R.C.V.S. for exchange and purchase of practices, also as to vacancies for assistants, but he had more in his mind that Colonial appointments might be dealt with by an Intelligence Bureau where candidates might be informed as to prospects and cost of living. With regard to Mr. Upton's pessimistic remarks, he (the speaker) would reply that the status of the profession depended on each individual, and as a man made his bed so he must lie. If a man was worthy of respect in the professional capacity he would get it. The *locus standi* of the general practitioner was determined by the individual himself.

Mr. SLOCOCK said that he was one of those who saw a bright opening for the profession. During the time he had been connected with it the profession had gone ahead very considerably, and if it continued to go forward at the same rate of progress he did not think there would be anything to be disappointed about. The total earnings of the members of the profession in the year preceding the war would compare very favourably with any period during the existence of the profession. He believed the total individual earnings at the present time would show a great increase on any previous earnings, and he believed future amounts would exceed even the present earnings. There were many openings in the profession at the present time which did not exist a few years ago, and new ones would ever be created. The standing of the profession depended a great deal on the individual. The working of the profession by the Council could be carried out much more easily if the Council were in possession of funds. If the Bill which enabled the College to make each member pay a guinea went through, it would place the Council in funds, and create more interest in the profession, because each man who paid his guinea would want his guinea's worth, and would be in sympathy with the idea of elevating the profession. He would become an active member, whereas at present he had lapsed into a state of apathy. As an example of apathy he would take the record of votes. How many men voted for members of Council? Again, to take a more striking example, how many members troubled to come to the Annual Meeting to express views? That was the place in which a member could air his grievances and criticise the Council. Of course, the good work of the Council was seldom taken into account, but the work undone was always recorded and was often imaginary. On the point of district representation he was not sure whether that would make any improvement on the present constitution, and he was not sure either that teachers could be done without on the Council. Personally he regarded the presence of teacher's representatives on the Council as being a very big asset. The education of the student was a most important matter, and who was better able to speak and direct them than the teacher? He was very happy with the present state of things, and he was sure that if the Council were supported with more funds they would be able to do much better work.

[On the motion of Mr. J. Willett seconded by Mr. F. W. Willett the proceedings of the Society were prolonged beyond the usual hour.]

Capt. ANGWIN quite agreed with the statements which had been made with regard to proper representation. As showing the lack of interest which many members took in the profession he quoted the examples of the various local societies. Previous to the war, the ordinary country practitioner would not attend the meetings of those societies, but he thought the experiences of veterinary surgeons who had been in the army during the war would alter that state of affairs. During the war they had learned forbearance in dealing with one another, and

had become fast friends, and he thought it would be found that when peace was finally declared there would be a great resuscitation of the local societies. Men would be more inclined to meet and exchange views, and band themselves together, and help to get local representation from different parts of the country. That was a simple solution of the problem.

Capt. ANGWIN then drew a comparison between the present state of the British veterinary colleges and the American veterinary colleges, which was much to the detriment of the former, and concluded by saying that it was money that was required. Until the Council obtained proper finance it could do very little.

The PRESIDENT thanked Mr. McIntosh for introducing the discussion, but said he did not agree with several of Mr. McIntosh's points. In the first place Mr. McIntosh objected to the veterinary department being subject to the Board of Agriculture. He thought it would be realised, however, that most of the veterinarian's work concerned the health of animals, and that must be regarded as one branch of agriculture, and one of the most important branches. He therefore failed to see, taken as a whole, that the veterinary profession could work more beneficially in connection with any other department than the Board of Agriculture. Although Mr. McIntosh objected to an agriculturist controlling veterinary surgeons—an objection which most members of the profession had—he (the President) thought it should be agreed that if veterinary surgery was one branch of agriculture, an agriculturist might co-ordinate the work of the various branches of agriculture. He should not control or dictate to the veterinary surgeon, but it was quite reasonable that he should co-ordinate the veterinary surgeon's work along with other branches of agriculture. He, like Mr. McIntosh, had been wondering what the Council had been doing in connection with the new Public Health Bill and the Ministry of Public Health. He had hoped that Mr. Slocock would have given some information upon that. In connection with the public health matter, one point was that at the present time the body concerned with public health matters, namely the Local Government Board, had already a veterinary surgeon on its staff, and although one was not cognisant with the actual duties performed by that officer, it was to be presumed that when matters particularly relevant to the health of animals in their relation to public health came up, that officer would be consulted. When that Board was taken over by the Ministry of Public Health, presumably that officer would go along with it. He did not know, however, to what extent that officer was consulted on matters veterinary, and rather feared that his position was due mainly, if not solely, to the fact that he was also a medical man. One had to remember, after all, that the question of public health was principally a question for medical men, rather than for veterinary surgeons. The question of meat and meat inspection, however, was primarily one for veterinary surgeons, because they were the only body that were trained in the pathology of animals, and were thereby fitted for that work. But it was not for veterinary surgeons to say what food should be eaten by man. His (the President's) view of the matter was that it was for the veterinary surgeon or the trained meat inspector to diagnose the condition of the flesh, and then it was for the medical man to decide whether or not that flesh should be used for food of man. He was strongly of opinion that there should be a veterinary staff at the Ministry of Public Health for advisory purposes relative to meat inspection and diseases transmissible from animals to man.

He was in cordial agreement with Mr. McIntosh on the point of full-time inspectors. In his view local practitioners should not be in the invidious position of having to inspect animals belonging to their own clients,

and to impose restrictions in the treatment of various diseases. He plumped for adequately remunerated, full-time Veterinary Officers of Health.

With regard to the question of the composition of the Council of the R.C.V.S., Mr. McIntosh had referred to the representation of schools thereon, but he (the President) thought they were not represented as such. The members of the Council were elected by the profession as a whole, and there was not a single one of them elected by the schools. Consequently he (the President) maintained that teachers were not elected on the Council as school representatives.

He agreed with Mr. McIntosh's preference for district representation. That would get over the reproach which Mr. McIntosh had levelled against the representation of the schools; but he (the President) would ask if it was suggested that a representative or two should be permitted on behalf of the whole of the schools, would other teachers be disqualified from being representatives of districts? If they were not to be disqualified the probability was that there would be just the same number of teachers on the Council, and possibly more. He considered a very strong case could be made out for district representation. The Council of the National Veterinary Medical Association was elected on that basis, and he would venture to prophesy that before many years were over there would be a very great change in the work of the National Veterinary Association, which he hoped would reflect itself in the matter of progress on behalf of the profession. Mr. McIntosh had suggested that there should be an election every year. He (the President) presumed he meant that the whole Council should be elected in one year and for one year only. That would be a great mistake, because it would ruin altogether any continuity of policy. Mr. Willett had suggested that the Council kept the profession too much in the dark, but work done in Committee could not always be published, because very frequently the point which was being aimed at might not be attained under publicity. There had however been an example during the past year of cross-purposes between the Council and the Central Veterinary Medical Society *apropos* the creation of a veterinary tribunal in connection with veterinary officers. It was unknown to the society that the Council already had the matter in hand, and because the society pressed the matter forward it got into trouble with the Council. The President of the Council had deplored the action the society had taken, although it was an action intended entirely to support the provision of a veterinary tribunal, which was ultimately obtained by the Council. Mr. Slocock had defended the Council. He (Mr. Wooldridge) fully agreed that the Council, and particularly the President, had done an enormous amount of work during the past few years which it had not been able to publish. It might be that in the present period of reconstruction many alterations would have to take place. Now was the time to try to get those alterations made. Shouting or open discussion was one means of propaganda, and he thought that was one of the ways by which matters might be advanced. Mr. Slocock said he did not want any change, and was quite content with present methods, but that was not an attitude which he (the President) thought would commend itself to the bulk of the profession.

Mr. Slocock said he desired to do away with the apathy of the general body of the profession.

The President said that would be done away with immediately the Council showed its cards more to the profession. Mr. Slocock had also pointed out that members could attend the Annual Meeting and voice their points there, but he (the President) had been to some of those Annual Meetings, and if members had attempted to voice their complaints they had been promptly

snuffed out; they had been told the matter was not on the agenda.

Mr. Slocock pointed out that there was a Parliamentary Committee of the Council which dealt with all Bills that were brought forward. Every Bill was watched by experts on behalf of the Council, and every clause of a Bill which affected the profession was considered. The Bills did not go through without the knowledge of the Council. All the periodicals of the day would be required to record all the work done by the Committees of the Council. Anything affecting the conduct of the profession was taken up, and if any deputation was appointed the President was always at the head of it.

Mr. McIntosh, in reply, said the object he had in view in bringing forward the subject had been more than fulfilled. Mr. Upton had taken a very pessimistic view of the profession—he always did, but he (Mr. McIntosh) had not lost faith in it. He was really surprised to hear Mr. Upton suggest that the profession should be tacked on as a side-line to various other things. We are too much nibbled at now. With regard to part-time inspectors referred to by Mr. Male, he had said nothing against part-time inspectors as individuals; it was the system which was wrong, and he maintained that it was a position which ought now to be held by whole-time officers. He had been prepared for Prof. Macqueen's destructive criticism, but it had not altered his views in the slightest degree, he was glad Prof. Macqueen was satisfied. He still maintained that the social and scientific status of the profession was far from being on a proper or satisfactory basis. He had suggested remedies to every one of his complaints. He considered the main responsibility of raising the status of the profession as a whole rested with the Council. If according to Prof. Macqueen the Council had nothing else to do but to attend to examinations and to disregard other matters, he thought it was not to be wondered at that the profession took no interest in the elections, and the sooner they organised outside the Council the better. Prof. Macqueen had rather inferred that a personal attack was being made upon the Council. He (Mr. McIntosh) hoped that impression would not get about. He had the greatest respect for the members of the Council, and he had the greatest admiration for the work done by the present President, and he should be sorry if anyone went away with the idea that there was anything further meant than a criticism of the Council's constitution and its policy. Prof. Macqueen had said that so far as the profession was concerned the status of the profession rested entirely with the individual. There was no doubt that the status of the individual very largely rested with himself, but the status of the profession did not. It did not occupy as a profession that position in the scientific world that it ought to occupy. Prof. Macqueen had not offered any constructive policy, which was what was wanted. Mr. Slocock had referred to the annual meetings and asked why it was that there was such poor attendances. He (Mr. McIntosh) had been to those annual meetings and had got tired of going. There had been nothing to interest him; and he thought that was the feeling of most members. Mr. Slocock had thought the good work of the Council was not taken sufficiently into account. All recognised that a great deal of important and good work had been done by the Council; but it was the work the Council had not done that the members wanted criticised. He did not object to teachers on the Council, in fact he thought the schools ought to be represented *ex officio*; but one was bound to admit that if there was a large number of teachers on the Council there was a sort of underlying and directing force attached to their work which would have its influence in the Council Chamber. The profession did not want too much of that. With regard to the President's remarks, what he (the speaker)

objected to was the veterinary surgeon having to report matters through a lay individual, whether that individual was an agricultural or any other expert.

There was a large staff of laymen at present going round the country supervising the work of veterinary surgeons, which was wrong and a waste of public money. Those laymen were getting perhaps £500 or more a year, whilst the junior members of the veterinary staff in the same department were getting from £260 upwards—less than the chief typist in the same office. Was that State recognition? Who was to blame for that?—not the individual.

On the motion of Mr. Willett, seconded by Captain Angwin, a hearty vote of thanks was accorded to Mr. McIntosh.

Captain ANGWIN pointed out, in regard to the matter of meat inspection, that in the army the veterinary officer was allowed to do that work—not the medical officer.

A vote of thanks was also accorded to Dr. Leiper for bringing forward his morbid specimens.

HUGH A. MACCORMACK, Hon. Sec.

# EASTERN COUNTIES VETERINARY MEDICAL SOCIETY. [NATIONAL V.M.A.—SOUTHERN BRANCH.]

## ANNUAL MEETING.

The Annual Meeting was held on Saturday, February 15th, at the Bell Hotel, Norwich, Mr. H. V. Low, M.R.C.V.S., the President, in the chair. Other members present were:—Messrs T. Barcham, Paston; J. Godbold, Stowmarket; F. M. Wallis, Halstead; H. Downe, Diss; A. Holl, New Buckenham; H. Buckingham, Norwich; J. Buckingham, Harleston; S. Hill, East Rudham; J. M. Currie, Lowestoft; R. C. Baxter, Downham Market; J. Barr, Acle; E. Margaron, Swaffham; J. K. Gooch, Holt; D. Jack, Kings Lynn; H. P. Standley, Norwich; Hon. Sec., W. H. Dennett, Foulsham. (visitor)

Letters responding regret at inability to attend:—E. H. Leach, Newmarket; P. Turner, Ixworth; H. B. Nixon, Haverill; C. C. Nesling, Framlingham; E. A. Hudson, Barrow; A. P. Burgon, Haverhill; F. Gooch, Stamford; H. Wilkinson, Martham; W. Turtill, Wickham Market.

The HON. SECRETARY (pro tem) Mr. H. P. Standley read the minutes of the last meeting.

Mr. S. E. HILL, of Rudham, Mr. J. M. CURRIE, of Lowestoft, were elected members.

The HON. SEC. presented the accounts for the year 1918, which showed a balance at the bank at the end of the year of £31-18-8. The accounts were adopted.

## ELECTION OF OFFICERS.

*President.* The HON. SEC. said it was usual to elect one of the Vice-presidents as President, and he moved that Mr. J. Barr, of Acle, be President for the ensuing year. Mr. Margaron, (Swaffham) seconded the motion and it was agreed to.

*Vice-presidents.* The following were elected:—Messrs H. V. Low, Norwich; J. J. Scott, Colchester; G. A. Hudson, Barrow; M. Bray, Docking.

*The Committee* were elected as under: Messrs T. E. Barcham, H. P. Standley, M. Bray, H. Buckingham, J. Gooch, H. V. Low, and A. Holl junior.

*Auditors.* Messrs. Barcham and Buckingham were elected, on the motion of the chairman, seconded by Mr. Margaron.

*Hon. Secretary.* The Chairman invited Mr. H. P. Standley to act as Honorary Secretary for another year, and remarked that that gentlemen had done really good work in keeping the Society going during very hard

times. At the end of the year, when he hoped the Society would have been put upon a sounder basis they might be able to release Mr. Standley, who did not really care for the position; but in the meantime they could not afford to dispense with his services.

Mr. STANDLEY said he would accept the position for another year on the distinct understanding that he would be released at the end of the year. The members did not give him any encouragement to continue the work. They ignored his notices, absented themselves from the meetings, and took no interest at all in the Society; and had it not been for Mr. Low and himself the Society would have ceased to exist before now.

There was a lot of work attached to the job: all he asked was that the members would attend the meetings now and then.

The CHAIRMAN endorsed the remarks of Mr. Standley, and said it was disheartening to the officers to call meetings and find only one or two members attending. He was glad to see so good an attendance that day.

Mr. BAXTER said war conditions had prevented members attending meetings.

Mr. STANDLEY was duly elected Honorary Secretary.

On the motion of the Chairman, seconded by Mr. Gooch, it was agreed to give ten guineas to the Victoria Benevolent Fund.

The HON. SECRETARY reported that Mr. W. S. King, of Burdett Road, London, had written to him saying "Will you please let me know if you have any decided views for the re-construction of the Royal College of Veterinary Surgeons, and if so would you stand as a candidate if nominated; if not can you please let me know the very best man in your area with good sound views whom we could nominate."

The CHAIRMAN thought the Eastern Counties Society ought to be represented on the Council; but no member could be found willing to become a candidate, and the Hon. Secretary was instructed to reply to Mr. King to that effect.

The HON. SEC. read a letter from Mr. Coleman, of Swindon, asking for the support of the Eastern Counties Society for Mr. Male and Mr. Willett, candidates for the Council.

The HON. SEC. said that years ago the Eastern Counties Society used to join with the Yorkshire Society for the election of the members of the Council; and it might be well for them now to support Mr. Male and Mr. Willett, who were brought forward by the Royal Counties Veterinary Association, on the understanding that that society should in turn support any candidates the Eastern Counties Society might nominate at some future time. He proposed that this should be done.

Mr. BARCHAM seconded the motion and it was carried.

The HON. SEC. said Prof. Wooldrige had informed him that although the Eastern Counties Society was affiliated to the National Association, it had never paid any affiliation fees, and it therefore owed some £10 or £12.

Prof. WOOLDRIGE said the affiliation fee was 1/- per member per annum, counting only those members who had paid their subscriptions to their own societies. The war had greatly interfered with the work of the National and that was why no application had been made for the fees. There was much to be done once the National was got into proper working order, and a good deal of money could be usefully spent. He was acting as Treasurer and Secretary, but Colonel Brittlebank was really Secretary, and would do some really good work as soon as he was discharged from the army.

The HON. SEC. promised to find out how much is owing to the National, and to remit the amount as soon as possible.

The HON. SEC. submitted some correspondence on the subject of fees charged to insurance offices for inspection and examination of horses, etc., the rates hitherto paid

being unsatisfactory. In a letter dated Feb. 11, Mr. H. E. Howlett, Secretary of the Live Stock Offices Association wrote:—

"In reply to your favour of the 8th inst, it was mentioned at the last meeting of the Association on the 17th ult. that applications were being received from a few associations for higher fees for insurance inspections. As there is no body representing the whole of the veterinary profession in such matters, it appeared difficult to deal with the matter satisfactorily, but some members proposed that the associations which had suggested alterations should be notified that my Committee would be glad to hear the views of any representative appointed to attend at the next meeting of the Committee. I sent a notice to your Association as one member stated that it had issued a scale of fees, and as you stated on the 31st ult. that your association had not formulated any scale of increased fees, the matter seemed closed so far as your association is concerned. I may state that the meeting arranged for the 7th inst, was unavoidably deferred, and the only association that intimated that its representative would attend was advised of the alterations. The great difficulty is that while expenses are greatly increased the companies still charge pre-war rates."

To this Mr. Standley had replied "I cannot see any useful purpose that would be served by sending a member of the association to meet your association at the present time, as the E.C.V.M.A. has not formulated any scale of increased fees in connection with the Live Stock Cos. We shall be holding a meeting of the E.C.V.M.A. on Feb. 15th, and I will let you know the decision of the matter."

The Hon. Sec. said he had given notice to several insurance companies that he would not act for them unless they paid him 1/- mileage in addition to the present fees, and two other members of the society had taken the same stand.

Prof. WOOLDRIDGE said had he known this matter was likely to be brought up he would have brought with him some correspondence he had had with the Live Stock Offices Association. Just before the war the National took up very strongly this matter of fees for inspection for insurance offices, and formulated a scheme and a scale of fees. The scheme was discussed very thoroughly and the rates first drawn up were cut down until they could not be reduced any lower, so that they might meet with the approval of the insurance offices. Finally it was decided to circulate the scale of fees and to ask all members of the National to accept no work for the insurance companies except on payment of those fees. The Insurance Offices Association, however, did not accept the scale *in toto* but said the fees were higher than they could possibly pay; and no doubt they felt they could always find some veterinary surgeon who would do the work for lower fees, therefore the scale was never definitely established. Meantime the Gloucestershire Veterinary Surgeons Association had adopted a very concise and short scale of fees. This revived the matter with the Live Stock Offices Association, who decided, apparently, to go into it more thoroughly. They invited the Secretary of the National Veterinary Association, Col. Brittlebank, to meet them but he was on government service, so the letter was delivered to him (the speaker) who had also received a letter from the Gloucestershire Society asking him to represent them. He went as representing the National. He contested the statement in Mr. Howlett's letter to the effect that there was no representative body, and claimed that the National was a representative body for that kind of work. It was just the kind of work the National wanted to do, and in order that it might represent all Societies it asked them to become affiliated. Only by such an organisation could the veterinary surgeons obtain concerted action.

He suggested that the Hon. Secretary should write to the Live Stock Offices Association telling them they were affiliated with the National, and that their views would be put forward by the National at the joint meeting; and that they were prepared to abide by any agreement arrived at by the National. If the Eastern Counties Society chose to send a representative, no doubt he would strengthen the hands of the National. So far as he knew at present Mr. Adams of Gloucestershire and himself were the only two people who were likely to be at the meeting next Friday. At the last meeting of the National in January of this year the matter was brought forward again and it was decided that the fees suggested by the insurance companies should not be accepted, because they were below the scale already agreed upon by the National.

Mr. BAXTER thought this was a matter that needed pushing.

Prof. WOOLDRIDGE thought the insurance offices would give in if the veterinary surgeons persisted. The representative of one of the biggest insurance offices had told him that half-a-crown was ample payment for just looking at a horse; and he had retorted that perhaps it was, but mere inspection would not help the insurance company much. There must be an examination if any good was to be done.

No professional man ought to be satisfied to sign a form on a mere inspection. He ought to insist on carrying out an examination and being paid for it, in which case he would be performing a function that would be useful both to the insurance company and to the owner. That was the only sound policy a professional man could pursue.

Mr. BAXTER said the insurance companies declared they did not want an examination. They only wanted to be safeguarded against having an old screw passed on them as a sound horse.

The Hon. Sec. said they had to consider the journey. The insurance companies were rich, and there was no reason why they should not pay proper fees. It was up to the Society to pass some definite resolution and to adopt a minimum scale of fees.

Mr. BAXTER said he too had received an offer of 4/- from the Imperial, and had refused to accept it. About a week ago he had another letter saying he need not trouble about inspection, as they had accepted the horse without. He would have had to travel three miles to see the horse.

Mr. GOOCH said he that morning received a form asking him to examine two horses. Hitherto the scale of fees was always printed on the back of the form but the back of the one he received that morning was blank. He had been told that the fees were to be revised.

Mr. WALLIS said he knew of a case in which a young fellow inspected a horse for half-a-crown, and it died very shortly afterwards. The company should have paid more money and had the horse properly examined—as it was they incurred a heavy loss. He thought if the Society got Prof. Wooldrige to represent it at the meeting on Friday it would be in good hands. He was sure the members of the Eastern Counties Society would be satisfied with the scale of fees suggested by the National.

The Hon. Sec.: I think we ought to formulate a scale of fees for ourselves.

Mr. WALLIS: I should be prepared to accept the scale adopted by the National.

Prof. WOOLDRIDGE suggested that all societies ought to have the same scale of fees. There would be strength behind uniformity.

The Hon. Sec.: We do not know what the National scheme is.

Prof. WOOLDRIDGE said the matter had been thoroughly discussed by the National with the Insurance Assoc-

iation. The decisions come to seemed to meet the approval of a large majority of the profession.

The Hon. Sec. : That is good enough for us.

It was agreed that Prof. Wooldrige should represent the Eastern Counties Society at the meeting with the Live Stock Offices Association.

On the motion of Mr. Wallis it was agreed to hold the next meeting at Ipswich.

On the motion of the Chairman, the Hon. Sec. was instructed to send letters of condolence to Mrs. Measures Chatterton of East Rudham and Miss Cleveland of Bungay.

(To be concluded.)

### LAMINITIS IN PREGNANT EWES.

A client of mine asked me in a casual way to look at his flock of in-lamb ewes, which he said had gone off their feet. I found a flock of 165 Kent ewes just ready to lamb, well bred and in excellent condition.

The account he gave was the ewes had been close folded on swede turnip grown with artificial manure, when several became ill, feverish, and some died; others not so ill went lame on their feet; and that he had treated them with Epsom salts. There were about 20 showing lameness, principally in one foot; on examination no lesions were apparent, but pain on pressure and heat. The wool also looked rough and untidy, as if they had been ill. Of course, we know that swede turnip are dangerous to pregnant ewes if given *ad lib.*, also that exercise is very beneficial. My reason for sending you this brief account is that I do not remember meeting with a similar case.

CHARLES MORGAN, M.R.C.V.S.,

Nonington.

### INSURANCE FEES, ETC.

Mr. Bibbey's letter touches on a subject that affects many veterinary surgeons; but there are scores of Insurance Companies that will not pay half 10/- for visits and examinations. Recently I was asked to drive over 5 miles, examine 2 horses, and fill up a voluminous report for the magnificent sum of 6/-! Needless to say flat catching may be interesting but it necessitates the presence of a flat. The men who work for less than rag and bone merchant's or pedlar's fees ought to be earmarked.

It takes professional men to estimate justly the value of professional services. Draw up minimum fees, plank them before the Insurance Companies, and make it "conduct disgraceful in a professional respect" to work for less; and let it go at that.

If "Fra Diavolo" will reveal his name to the communication where he charges the army authorities with failing to cure sarcoptic mange until they used a proprietary dip, I think he will stand a good chance of an action for libel.

G. MAYALL.

F. W. DAY, M.R.C.V.S., Newmarket, Suffolk.

Graduated, Lond: April 1878.

Mr. Day died 11th March, aged 64.

The remains of the late Mr. F. W. Day, were interred in the Newmarket Cemetery on Saturday afternoon, 15th inst., amid every expression of esteem from those who have been his fellow townspeople for the last 30 years. The mourners included Mr. Reginald Day and Mr. Alec Day (sons), Mr. Elijah Moore and Mr. Charles Heckford (sons-in-law), Mr. Joe Cartwright and Mr. T. W. Davis (nephews of Mrs. Day). Mr. John Watts (son-in-law) was unavoidably absent. There were others who followed, and many present at the graveside.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
		Cases Confrmd												
		Dogs	Other Anmls	Out-breaks	Ani- mals.	Out-breaks	Ani- mals.	Out-breaks	Ani- mals.					
										(a)	(a)		(b)	(b)
Gr. BRITAIN.														
Week ended March 22		2		5	5					131	230	4	19	5
Corresponding week in	1918			12	14			1	1	115	211	5	14	2
	1917			14	17					59	121	5	44	26
	1916			12	15			2	9	53	108	7	80	292
Total for 12 weeks, 1919		24	3	48	66	19	106	1	1	1594	4049	180	257	89
Corresponding period in	1918			83	97			7	29	1753	3407	194	190	70
	1917			167	198			7	12	957	2022	310	507	180
	1916			154	183	1	24	16	56	953	2359	148	973	3060

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, March 25, 1919

† Counties affected, animals attacked:—

Excluding outbreaks in army horses.

IRELAND.		Outbreaks		Animals		Animals		Animals		Animals		Animals	
Week ended March 22		...	...	...	...	...	...	...	...	...	...	...	...
Corresponding Week in		1918	...	...	...	...	...	...	...	...	...	...	...
		1917	...	...	...	...	...	...	...	...	...	...	...
		1916	...	...	...	...	...	...	...	...	...	...	...
Total for 12 weeks, 1919		...	...	...	...	1	1	41	107	14	47	...	...
Corresponding period in		1918	...	1	1	...	...	44	133	5	24	...	...
		1917	...	2	2	...	1	13	154	55	844	...	...
		1916	...	1	5	...	...	22	165	53	264	...	...

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, March 24, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

**Royal College of Veterinary Surgeons.***President:* Mr. Frank W. Garnett, M.R.C.V.S., J.P.*Vice-Presidents:* Mr. J. McI. McCall, M.B., C.M., M.R.C.V.S.  
J. McKinna, F.R.C.V.S.*Secretary and Registrar:* Mr. Fred Bullock,  
10 Red Lion Square, London, W.C. 1.**NATIONAL VETERINARY ASSOCIATION***President:* Dr. O. Charnock Bradley, Prin. R.V. Coll., Edin.  
*Sec:* Mr. J. W. Brittlebank, M.R.C.V.S. (on Service),  
Town Hall, Manchester*Assist. Sec:* Mr. W. L. Harrison, F.R.C.V.S. (on Service),  
11 Anchor Terrace, Southwark Bridge, S.E.*Treas:* Prof. G. H. Wooldridge, F.R.C.V.S. (Acting Hon. Sec),  
Ryl. Vet. Coll., Camden Town N.W.**Northern Branch:***Pres.* Mr. W. A. Taylor, (F) Brick Street, Manchester  
*Hon. Sec.* Mr. A. W. Noël Pillers, (F)  
71 Smithdown Lane, Liverpool**LANCASHIRE V.M.A.***Pres:* Mr. G. H. Locke, M.R.C.V.S.,  
Grosvenor-street, Manchester*Hon. Sec.* Mr. J. W. Brittlebank, M.R.C.V.S.,  
Town Hall, Manchester*Hon. Treas:* Mr. E. H. Stent, M.R.C.V.S., Preston-st, Hulme*Meetings,* 1st Thursday in April, June, Sept., & Dec.**LIVERPOOL UNIVERSITY V.M.S.***Pres:* Mr. J. P. Heyes, F.R.C.V.S., Wigan  
*Hon. Sec:* Mr. A. Walker, F.R.C.V.S., Mill Lane, West Derby*Pathological Sec:* Mr. D. C. Matheson, F.R.C.V.S.  
*Meetings,* May, July, October, January.**MIDLAND COUNTIES V.M.A.***Pres:* Mr. J. Malcolm, F.R.C.V.S., Birmingham  
*Hon. Sec:* Mr. H. J. Dawes, F.R.C.V.S.,  
Camden House, High-st., West Bromwich*Hon. Treas.* Mr. J. J. Burchall, M.R.C.V.S., Barrow-on-Soar  
*Meetings,* Second Tuesday, Wednesday, Thursday, and  
Friday alternately in Feb., May, Aug. and Nov.**NORTH OF ENGLAND V.M.A.***Pres:*  
*Hon. Sec:* T. T. Jack, M.R.C.V.S., 3 Elmwood-st, Sunderland  
*Meetings,* Third Friday, Feb., May, Aug. and Nov.**NORTH MIDLAND VETERINARY ASSOCIATION***Pres:* Mr. W. Collinson, M.R.C.V.S., Auston, Sheffield  
*Hon. Sec:* Mr. J. S. Lloyd, F.R.C.V.S., Sheffield**NORTH WALES V.M.A.***Pres:* Mr. Hugh Williams, M.R.C.V.S., Ty Croes  
*Hon. Sec.* Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon  
*Meetings,* First Tuesday, March and September**SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.***Pres:* Mr. J. M. Walker, F.R.C.V.S., Hartlepool  
*Hon. Sec. & Treas:* Mr. F. H. Sanderson, M.R.C.V.S.,  
Victoria Road, Darlington  
*Meetings,* First Friday, Mar., June, Sept. and Dec.**YORKSHIRE VET. ASSOCIATION***Pres.* Mr. S. E. Sampson, M.R.C.V.S., Hillsboro', Sheffield  
*Hon. Sec:* Mr. J. Clarkson, M.R.C.V.S., Garforth, nr. Leeds  
*Hon. Treas:* Mr. A. McCarmick, M.R.C.V.S.,  
Kirkstall-road, Leeds**Southern Branch:***Pres.* Sir Stewart Stockman, 4 Whitehall Place, S.W.  
*Sec.***CENTRAL V.S.***Pres.* Prof. G. H. Wooldridge, M.R.C.V.S., R.V. Coll, London  
*Hon. Sec:* Mr. H. A. MacCormack, M.R.C.V.S.,  
122 St. George's Avenue, Tufnell Park, N.*Meetings pro. tem.),* First Thursday in October and alter-  
nate months, except August,  
10 Red Lion Square, Holborn, at 7 p.m.**EASTERN COUNTIES V.M.A.***Pres.* Mr. J. Barr, M.R.C.V.S., Aole, Norfolk  
*Hon. Sec. & Treas:* Mr. H. P. Standley, M.R.C.V.S., Norwich.  
*Meetings,* Second Tuesday, Feb., July and Sept.**LINCOLNSHIRE AND DISTRICT V.M.S.***Pres.* Mr. C. W. Townsend, F.R.C.V.S.,  
Long Stanton, Cambridge  
*Hon. Sec. & Treas:* Mr. Tom Hicks, M.R.C.V.S.,  
Boston Road, Sleaford  
*Meetings,* Second Thursday Feb., June, and October**ROYAL COUNTIES V.M.A.***Pres:* Mr. G. P. Male, M.R.C.V.S., Friar Street, Reading  
*Hon. Sec.* Mr. J. C. Coleman, M.R.C.V.S., Swindon  
*Hon. Treas:* Mr. J. Willett, M.R.C.V.S., 6 Harley Place, W. 1  
*Meetings,* Last Friday, Jan., April, July and Nov.**SOUTHERN COUNTIES V.S.***Pres:* Mr. G. H. Livesey, M.R.C.V.S., Hove, Sussex  
*Hon. Sec:* Mr. J. T. Angwin, M.R.C.V.S., Arundel (on Service)  
*Hon. Treas:* Mr. E. W. Baker, M.R.C.V.S., Wimborne  
*Meetings,* Last Thursday, Mar., June and Sept.**SOUTH EASTERN V.A.***Pres.* Mr. E. Lyne Dixon, M.R.C.V.S., Margate  
*Hon. Sec. & Treas.* Mr. H. P. Hogben, M.R.C.V.S.,  
3 Manor Road, Folkestone**WESTERN COUNTIES V.M.A.***Pres:* Mr. W. Roach, F.R.C.V.S., York Rd., Exeter  
*Hon. Sec.* Mr. W. Ascott, M.R.C.V.S., (on Service)  
Mr. C. E. Tucker, 7 Greville St., Bideford (pro tem.)  
*Hon. Treas:* Mr. P. G. Bond, M.R.C.V.S., Plymouth  
*Meetings,* Third Thursday, March, July and November**Irish Branch:***Pres.* Mr. A. Watson, Municipal Buildings, Dublin  
*Sec.* Mr. P. D. Reavy, Leafield, Bundoran, Co. Donegal  
**CENTRAL V.A. OF IRELAND.***Pres:*  
*Hon. Sec.* Mr. E. C. Winter, F.R.C.V.S., Queen-st., Limerick  
*Treas:* Mr. J. F. Healy, M.R.C.V.S., Middleton**CONNAUGHT V.M.A.***Pres.* Mr. D. Hamilton, M.R.C.V.S., Ballina  
*Hon. Sec. & Treas.* Mr. A. J. Moffett, M.R.C.V.S., Galway**VET. MED. ASSN. OF IRELAND.***Pres:* Prof. J. J. O'Connor, M.R.C.V.S., R.V. Coll., Dublin  
*Hon. Sec:* Prof. J. J. O'Connor  
*Hon. Treas:* Prof. J. F. Craig, M.A., M.R.C.V.S.,  
R.V. Coll., Dublin**NORTH OF IRELAND V.M.A.***Pres:* Mr. J. Ewing Johnston, M.R.C.V.S., Belfast  
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# THE VETERINARY RECORD

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## AMPUTATION OF THE UTERUS.

Mr. L. M. Magee recently, not for the first time, put a successful case of this operation on record; and some of the remarks upon the subject made by himself and other Irish members should be useful to country practitioners. The operation has never received quite the attention it deserves from English members. There have been men who considered it practically or absolutely hopeless, and there are still some who never attempt it. Yet it is certain that it offers considerable hope of success under fairly favourable conditions, and that not uncommonly it presents the only chance of saving the animal's life. These reasons alone should impel country practitioners in particular to study the operation; especially as, if performed at all, it always has to be done at short notice with no time for reading up its details.

There are several "pitfalls" in connection with the operation. The chief of these are the dangers of excising a hernia of bladder or intestine within the inverted uterus, of including the meatus urinarius in the ligatured portion, and of applying an insecure ligature. The first, which has caused many fatalities, can easily be avoided by incising the uterine mass and manually exploring its interior, while correct anatomical knowledge and wise choice of surgical method respectively should guard against the second and third. These three points show the risk of attempting the operation without having previously thought out its details.

The operation holds possibilities of interesting and important developments of its methods. It is not always necessary, and may even be inadvisable, to excise the entire uterus when only a portion has been hopelessly damaged; and this affords considerable scope for judgment in some cases.

A more important question is whether the uterine stump should be ligated or sutured. Ligation is almost universally practised; but W. L. Williams, the noted American surgeon and obstetrician, has advanced strong reasons, as regards the larger animals at least, for preferring suturing as "more surgical and safer," and has described the technique for its performance.

Partly because the operation is an old one, and still more from the conditions under which it is found necessary, the tendency has always been to perform it in a somewhat rough-and-ready fashion. Despite that fact, and the further one that it has not uncommonly been performed too late, it has been fairly successful. Probably further developments in its technique may improve its results in the future; but, even as it stands today, it is one of the operations which the country practitioner should keep himself fitted to perform at any moment.

## THE THERAPEUTIC EFFECTS OF INGESTING BLOOD OR PREPARATIONS OF BLOOD.

The therapeutic effects of ingesting natural blood have been known for a long time. The reason that this remedy has not been more used is that the majority of herbivorous animals, and especially mankind, have a very marked aversion to fresh blood, whatever its origin. Attempts have therefore been made to transform blood into a solid product which can be durably preserved; and the most advantageous results have been obtained by desiccation at a temperature below 40 °C. Goslar, a veterinarian, has perfected this method by, before desiccation, making an intimate mixture of blood and crushed grains. He thus obtains a solid clotted mass, the toughness of which results from the combination of gluten and fibrin, the whole forming a material of horny consistence. The product is not at all hygroscopic, and can be preserved almost indefinitely. An analogous compound, more especially destined for human therapeutics, is made by the same procedure and known under the name of "secron." On account of the low temperature at which the desiccation is carried out and the mixture with farinaceous material, the blood preserves almost intact all the biological properties which it owes to the presence of the ferments and enzymes secreted by the hæmatopoietic glands.

The principal glands of internal secretion which throw their products into the blood are the Thyroids, Supra renal Capsules, pituitary gland, and sexual glands. These organs may become diseased, may atrophy, or may degenerate, especially where there is superabundance of toxic material carried in the blood. This is observed frequently in cases of infectious disease, chronic intoxication, permanent bad digestion, etc. The hæmatopoietic glands are overworked, and finally no longer suffice for their task. It is comprehensible that in similar conditions, the ingestion of natural blood, or of a preparation in which blood coming from healthy animals has preserved the whole of its biological properties, may assist the distressed organism by supplying it with the ferments and anti-toxins which it is no longer able to elaborate for itself in sufficient quantities.

Goslar has given a *résumé* of the results obtained in human and veterinary medicine by the use of "secron" or a similar product.

The administration of secron to women suckling their infants causes a manifest augmentation of the sudoriparous, renal, and mammary glands.

Secron is also very efficacious in cases of dyspepsia or of intestinal catarrh. Gaseous indigestion of the human stomach recovers in a short time by the absorption of secron.

The activity of the skin augments very manifestly

under the influence of this treatment. In animals, the shedding of the hair is accelerated, and eczema and pruritis disappear after a short time.

This remedy is entirely indicated (and has proved its efficacy) against anæmia, chlorosis, suppression of the menses in women, and neurasthenia.

Secron has given marvellous results in the convalescence of horses after strangles or infectious pneumonia.

All this seems, at first sight, an exaggeration. Physiologically, however, the beneficial effects of the ingestion of blood or secron are easily comprehensible. It is only necessary to think of the important part which the hæmatopoietic glands play in the organism, and of the serious consequences which result from insufficiency of one or other of these glands. Organo-therapy or, in its absence, the absorption of integral blood is the only remedy for such insufficiency.

#### COCCIDIOSIS IN THE GOAT.

As coccidiosis of the goat had never previously been reported in Germany, Karsten published his personal observations upon it in *Deutsche Tierärztliche Wochenschrift* for 1913. In August, 1912, he learned that an epizootic had broken out in a herd of goats at pasture. The affected animals contracted persistent diarrhoea, became progressively emaciated, and finally fell into a state of extreme weakness, which was usually terminated by death.

Post-mortem examination showed that the affection was intestinal coccidiosis. It was then recognised that it would have been possible to make the diagnosis during life, for the diarrhoeic faeces containing numerous coccidia.

Upon diagnosis, the animals were at once withdrawn from the contaminated pastures; and from that time the propagation of the disease was definitely arrested, and 50% of the affected animals completely recovered.

#### HYDROCHLORIC ACID POISONING IN THE HORSE.

Levens has published this observation in *Deutsche Tierärztliche Wochenschrift*. He fed two horses of his own with foreign oats and excellent hay, and soon noticed an ulcerous stomatitis and a slight gastro-enteritis. Suspecting the oats, he had them analysed; and the result proved Hydrochloric acid had been used to impart a good colour to the oats; and the excess of acid had not subsequently been washed away. Appropriate treatment was instituted as soon as the origin of the disease became known; and after four days the horses were out of danger.—(*Annales de Médecine Vétérinaire*).

W. R. C.

### NATIONAL VETERINARY MEDICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

#### VETERINARY SURGEONS' FEES AND INSURANCE COMPANIES.

At the last Annual general meeting of the National Veterinary Medical Association the question of veterinary surgeons' fees was discussed, and a resolution was passed recommending that all fees charged by veterinary surgeons should be increased by not less than 25%.

It was further resolved that the scale of fees drawn up after numerous committee meetings, and adopted by

the National in March 1914, for the examination etc., of animals for insurance purposes should also be increased by 25%. The schedule of fees was duly circulated in 1914, to the local branches of the National, but owing to lack of united action on the part of some members, and of veterinary surgeons not members of the association or its branches, the insurance companies have continued to get their work done at absurdly low fees.

The proceedings at some of the local societies show that there is now a very widespread feeling that those fees must be raised, but there is great danger of undermining the work of the National by separate action if care is not taken.

As acting secretary of the National, and with the able assistance of Mr. A. S. Adams, of Dursley, representing the veterinary surgeons of Gloucestershire, I have been in conference with the Live Stock Offices Association, the body which co-ordinates the policy of the Insurance Companies, with reference, *inter alia*, to veterinary surgeons' fees. Negotiations are in hand at the present time, but some difficulty is being experienced owing to the view expressed by the L.S.O.A. that the National only represents some of the veterinary societies, and not all. This is true only in so far as concerns a few recently-formed societies or collections of veterinary surgeons who have not yet affiliated to the National.

Under these circumstances, therefore, I would suggest that the various Branches of the National, and other local bodies, should postpone their proceedings pending some definite result of the present negotiations. It might also strengthen our hands if the local societies intimated to the Live Stock Offices Association, 17 Pall Mall East, S.W. 1, their adherence to the National, and their willingness to accept the parent body, the N.V.M.A., as their authorised agents in this matter.

I append the schedule of fees as adopted in 1914, together with the list of fees as affected by the 25% increase.

Scale of Fees as finally adopted by the Council of the above Association at their sitting on the 12th of March, 1914, for examination and report on general health, condition, age, colour markings, and approximate value of animals proposed for insurance:—

#### HORSES AND VALUABLE PEDIGREE CATTLE.

	Original N.V.M.A. Fees.	Amended Fees
(a) Single animal under the value of £50	5/-	6/3
Two animals " " "	5/- ea.	6/3 ea.
After the first two " " "	2/6	3/1½
(b) Single animal valued at £50, and under £100	10/6	12/-
(c) " " valued at £100, and under £250	15/-	18/9
(d) " " valued at £250, and under £1000	21/-	26/3

If more than two animals are examined, the third and all subsequent ones at half the above charges.

#### STORE CATTLE, ORDINARY MILKING COWS, ETC.

(e) Single animal	5/-	6/3
Two or more animals	per head 2/6	3/1½
(f) Special reports on illness, accident, &c.	10/6	13/-
(g) Post-mortem exams. and reports	21/- ea.	26/3
(h) Other stock, sheep, pigs, etc., in considerable numbers, by special arrangements.		

The above fees are for services rendered at the veterinary surgeons' establishment, or within the distance of one mile thereof. For allowance beyond one mile the following additional fees are to be charged in lieu of mileage:—

From 1 to 3 miles	1/-	1/8
" 3 to 5 "	2/6	3/1½
" 5 to 8 "	3/6	4/4½
Beyond 8 miles in proportion.		

GEO. H. WOOLDRIDGE.

R.V. College, Hon. Treas. and Acting Hon. Sec.  
Camden Town, N.W.

EASTERN COUNTIES  
VETERINARY MEDICAL SOCIETY.  
[NATIONAL V.M.A.—SOUTHERN BRANCH.]

PARASITIC MANGE IN THE HORSE.

By PROF. G. H. WOOLDRIDGE R. V. COLL: LONDON.

Mange is a skin disease caused by parasites belonging to the order Acarina and comprised of the families Sarcoptidae and Demodecidae. The parasites are all small and are mainly microscopic in size though some may be recognised as small moving points with the unaided eye.

In the horse three genera of Sarcoptidae may be met with, namely, *Sarcoptes*, *Psoroptes* and the *Chorioptes*, or *Symbiotes*, causing respectively sarcoptic mange, psoroptic mange, or chorioptic or symbiotic mange. *Demodecidae* are comparatively rarer in the horse, and when present may set up demodectic or follicular mange.

**Life History of the Parasites.** All the Sarcoptidae have a similar life history. The fertilized or ovigerous female deposits her eggs, which under favourable circumstances hatch out and liberate the larvæ which possess only three pairs of legs and are asexual. After moulting several times the nymphæ is liberated possessing four pairs of legs but still asexual. After further moulting the nymphæ gives rise to the adult sexually mature male, or the pubescent female. The females are always in excess of the males. The male then fertilizes one or more females and dies, while the fertilized female, after moulting, becomes the ovigerous female and deposits her eggs, thus recommencing the life cycle.

In the case of the *Sarcoptes*, the females burrow into the epidermis, forming channels or galleries, depositing their eggs as they go, the number averaging about 15 (10-30.) The *Sarcoptes* then perishes in the depth of the gallery. The eggs hatch out in from 3-7 days and the hexapod larvæ come to the surface, but are still protected by the scales of the skin. Under favourable conditions the larvæ become nymphæ 3-4 days later, and after a similar period the adults are produced from the nymphæ, the full cycle under favourable conditions thus takes from 2-3 weeks. Unless a considerable number of parasites were simultaneously transferred from a diseased to a healthy animal, it would therefore take at least three weeks before symptoms of mange would develop, while if the parasites were very few it would probably take another 3 or 4 weeks for the second generation of acari to be produced before any symptoms would be shown.

The *Psoroptes* live on the surface of the skin, under the scales of the epidermis, but do not burrow. In other respects their life history corresponds very closely with that of the *sarcoptes*, but as the female deposits many more eggs, 90-100, their multiplication is very much more rapid.

The *Chorioptes* or *Symbiotes* also live on the surface and do not burrow, and have a similar life history. They are limited to the legs of the host.

CHARACTERS OF THE PARASITES.

***Sarcoptes Equi.*** The sarcopt is a very small acarus round or oval in shape. The head or rostrum, consisting of maxilla, mandibles and palpi, is very thick and strong and adapted for burrowing. It possesses four pairs of short thick legs, the anterior two pairs being close to the head at the side of the body, and the posterior two pairs being under the body, the last pair being invisible from the dorsal aspect. In the female the first and second pair of legs carry bell-shaped suckers on short stalks, and in the male the first, second and fourth pairs carry suckers. The ovigerous female is about 400 microns long and the male about 250 microns.

***Psoroptes Equi.*** This is the largest of the mange acari, the ovigerous female averaging about 700 microns

long and the male 500 microns. It is oval in shape, and the rostrum is long and conical, and thus adapted for piercing the epidermis. The limbs are long and attached near to the margin of the body. The female carries suckers on the first, second and fourth pairs of legs, and the male carries suckers on the first, second and third pairs of legs. In the male there are also two triangular abdominal prolongations each carrying five hairs.

***Chorioptes Equi.*** The chorioptes are also oval parasites, the females being about 400 microns long and the males about 300 microns. They possess a short conical rostrum, but fairly long legs. The female possesses suckers on the first, second and fourth pairs, and the male has suckers on all four pairs, on very short stalks. The male also possesses two rectangular abdominal prolongations each carrying four bristles.

The duration of life of the various parasites is subject to much variation. On the host the probable duration is from 4 to 6 weeks after attaining maturity. Off the host the parasites live a much shorter time—the *sarcoptes* 7-14 days, the *psoroptes* 3-4 weeks, and the *chorioptes* rather longer, probably as much as 7-8 weeks. The eggs of the various parasites only retain their vitality for 2-4 weeks.

GENERAL SYMPTOMS.

These depend partly upon the mechanical irritation caused by the parasites puncturing the epidermis, or burrowing in the case of the *sarcoptes*, and also to some extent by irritating secretions which they produce; the latter is probably of far greater importance than generally recognised. The most noticeable features are intense irritation, which is usually worse at night time or if the animal becomes hot. There is loss of hair, redness of the skin visible in light coloured horses, and thickening of the epidermis with the formation of scales and crusts. If the affection is wide spread and chronic it will also lead to great emaciation and loss of flesh, due to interference with the functions of the skin, to lack of rest, and to the absorption of toxic products. In such cases it may terminate fatally.

***Symptoms of Sarcoptic Mange.*** The first sign is that of intense pruritus. The animal is constantly rubbing and biting itself, and if rubbed or scratched by the hand usually shows satisfaction by stretching the head and by peculiar movements of the lips and nose. One may also feel small papules on the skin, and scaly patches may be seen from which the hair soon falls. The patches which are small at first, usually commence about the withers, neck and shoulders, extend by rubbing and by grooming, and may eventually affect the whole trunk. The limbs, the mane and tail are very rarely invaded by the *sarcoptes*. On account of the rubbing etc, the thickened skin may become fissured, with the formation of bleeding crusts and nauseous discharge. If the condition is widespread and treatment is neglected there is great malnutrition wasting and debility, and it may be fatal.

***Symptoms of Psoroptic Mange*** are similar in many respects to those of sarcoptic mange. The lesions first appear about the mane and tail from which seats they spread along the back, then to the poll, the submaxillary space and the breast, and in bad cases may extend all over the trunk, but only in exceptional cases does it extend to the limbs. There is intense pruritus and the animal responds in a similar manner to rubbing with the hand. (It may be mentioned in passing, however, that this response to rubbing is by no means diagnostic of mange. It is only an evidence of pruritus, and horses affected with lice or harvest bugs, etc., will respond in a similar manner). In psoroptic mange there is often a little yellowish serous exudate on to the surface of the skin giving a moister and more matted condition than is usual in sarcoptic mange. It has been observed that in

some horses the psoroptes may be confined to the region of the ears without causing serious lesions. In such cases the animal often shakes his head and rubs it against the manger or other object and may attempt to scratch it with his hind foot.

The differences between the symptoms of sarcoptic and psoroptic mange in bad cases are comparatively slight and it is often quite impossible to differentiate them except by the discovery and identification of the individual parasite. Occasionally, of course, the two forms may co-exist. The importance of positive diagnosis lies in prognosis, since an earlier recovery may be expected in psoroptic than in sarcoptic mange.

*Symptoms of Choriopic or Symbiotic Mange.* This form is chiefly met with in the lower part of the limbs, the pasterns and fetlocks, and sometimes extending above the hocks and knees. It most frequently occurs in coarse, hairy legged horses, and dirt and neglect materially predispose to infection. Attention is often first drawn to the condition by the animal stamping his feet and rubbing his leg with the opposite foot, and the irritation appears to be more pronounced at night when in a warm stable. On examination, the skin at the back of the pasterns and fetlocks is seen to be scaly and thickened, and the hair may be rubbed off. The thickening of the skin often leads to the formation of fissures which usually contain exudate and offensive discharge. The great pruritus and consequent rubbing of one leg against the other leads to the formation of ulcers, and sometimes to injuries of the coronets resembling treads. Choriopic mange very rarely extends to any part other than the limbs, and the general condition of the horse is not much interfered with.

#### DIAGNOSIS.

The clinical features of mange are often sufficient to afford a basis for a fairly positive opinion without the resort to microscopic examination, but in no case should an *absolutely* positive diagnosis be made without the discovery of the causal parasite. Somewhat similar itchy conditions of the skin may be set up by lice, hay-mites and harvest bugs, and in each of these cases a horse will indicate pleasure by nibbling movements of his lips, etc., on being rubbed with the hand. The discovery of these parasites, however, does not definitely negative the existence of mange, but if they are present and a careful examination fails to reveal the presence of mange parasites it may be safely presumed that the former are the cause of the skin disease.

*Examination for the Parasite.* For this purpose scrapings from the skin of the affected animal must be taken from some new lesion which has not been treated with parasiticide dressings. A deep scraping should be taken right through the epidermis in order to ensure the removal of parasites from the deeper situations as in the case of sarcoptes. The scraping may then be warmed and examined with a hand lens by which psoroptes or choriopes may be seen. They may, however, be more easily seen by soaking the crusts in 10% caustic potash solution and then spreading it on a glass slide for examination under low power of the microscope. By this method the sarcoptes may also be seen.

Another simple method of examination consists in placing the scrapings in a small glass covered specimen box like a pill box and putting it in a warm place for half an hour or so. The warmth makes the parasites somewhat active and they often emerge from the debris on to the inner surface of the glass lid and can then be identified by hand lens or transferred to a slide for microscopic examination.

Pugh's mange tray is also a useful means of discovering the parasites. It consists of a black enamelled hot water dish. It is filled with hot water, and the scrapings are placed outside the tray. The warmth makes the

parasites active and they can be seen making their way out of the debris, either by the naked eye or by means of a hand lens. The black enamelled surface makes them easily visible. They can then be transferred to a slide for minute microscopic examination. These methods are, however, rather tedious in cases where the parasites are not numerous and a considerable quantity of material has to be examined. It is then that the method suggested by Sheather is particularly serviceable. In fact if a large number of scrapings has to be examined this is the most expeditious and certain method of discovering the parasite if present.

*Sheather's Method.* This consists of placing the material in a test tube (or a portion of, it as it may be wise to reserve a little in case of accident). Hair and epithelial debris may be all put in together. A quantity of 10% caustic potash solution is then put in the test tube and it is boiled over a Bunsen burner or spirit lamp from 5-10 minutes. This dissolves most of the hair and epithelium, but the parasites and their eggs are left uninjured. The material is then centrifuged for a few turns, as the result of which process any parasites present are speedily driven to the bottom of the tube. The sediment thus obtained should then be transferred by means of a pipette to a slide and spread out and examined under a low power of the microscope. Practically the whole of the parasites from a large amount of material may thus be obtained on a single slide, so avoiding the necessity of examination of numerous slides. The method is particularly serviceable in those cases where the parasites are not very numerous.

*Transmission.* The chief source of infection in mange is an affected animal and it often happens that an animal already affected is introduced into a stud but not showing appreciable symptoms for a month or two after. During this period his grooming utensils have been used on other horses and parasites have been transferred, so that by the time the first one shows symptoms there may be others also showing symptoms of mange. Other means of transmission include harness, hands and clothes of attendants, rubbing posts, litter, railway horse boxes and ambulances, and it should be pointed out that the blacksmith is anything but free from suspicion. Transmission is more rapid in studs where a number of horses are stabled closely together, and particularly in badly kept neglected horses and stables. Over-work, exposure and bad feeding afford better conditions for the development of the parasites when once they have been conveyed to the skin of an animal. The sarcoptic and psoroptic forms are the most easily transferred, while the symbiotic form of the disease is much less rapidly transferred.

Sarcoptic mange is transmissible from horse to horse and sometimes to the ox; it is also transmissible to man, and affects the arms and breasts of grooms and stablemen causing great pruritus. It only lasts a few days, and is rapidly remedied with a little sulphur ointment. Psoroptic mange is easily transmitted from horse to horse, but not to grooms. Symbiotic mange is also transmissible only from horse to horse and often then only in favourable or dirty conditions.

#### FOLLICULAR MANGE.

As already stated follicular mange, which is due to the *Demodex folliculorum* is sometimes met with in the horse. This parasite differs considerably from the sarcoptidæ already described. It is a degenerate form of acarid, with an elongated fusiform body having in the adult stage four pairs of short stumpy legs which protrude like little knobs at the margins of the anterior portion of the body. The species has a life cycle similar to that of other acari. The ovigerous females deposit eggs from which hexapod larvae are hatched. These give rise to nymphæ which are asexual and subsequently

develope into the sexually mature acari. They inhabit principally the hair follicles and the sebaceous glands of the skin, and sometimes set up lesions closely resembling acne. It is not a very contagious disease and its actual method of spread is obscure.

**Symptoms.** The lesions of follicular mange in the horse are principally met with about the head, chiefly in the region of the eye-lids and the nose. The hairs become erect and are often shed, and a scaly condition develops, pustules are comparatively rare. There is very little pruritus and it is rare for more than one case to be met with at a time.

#### TREATMENT.

The treatment of sarcoptic and psoroptic and follicular mange consists primarily in the application of parasitocides, a considerable number of which are effective. Thoroughness and frequency of application are the only secrets of success, provided, of course, that an efficient parasiticide is used; and herein lies the difficulty. If one wishes to be uniformly successful it would appear to be necessary to apply the remedies oneself, but in a large practice such a procedure is not practicable. Owing to the life cycle, the dressings should be applied every 4 days. For psoroptic and choriopic mange, 4 such dressings should suffice. For sarcoptic the treatment must extend over 4 to 6 weeks. The various parasitocides employed include sulphur, potassium sulphurate, sulphurated lime, creosote, oil of tar, turpentine, petroleum, crude tobacco juice, salicylic acid, arsenic, mercury, chloride of zinc, and eusol. It is difficult to say which of these is the most effective, for as I have already stated, probably more depends upon the method and thoroughness of application than on the choice of the particular agent. In my hands the best results have been obtained with the old dressing consisting of sulphur 1-1½ lb, bicarbonate of potash ½ lb, oil of tar 3viii and rape oil 1 gallon. It has been practically impossible recently to obtain good rape oil for this purpose, and other oils which have been suggested, such as fish oil and train oil, are rather apt to blister the skin and cause a shedding of the coat, which may be found very troublesome. The lime and sulphur dressing is a much cheaper preparation, and according to some authorities is equally effective, though in my hands it has not proved quite so useful. As recommended by the Board of Agriculture, it may be prepared by first mixing together 9lb lime, recently slaked, with 18lb sulphur, and making it into a paste almost like mortar. It is put into a cloth bag tied securely and suspended in a boiler containing from 10-12 gals. of water. It is then boiled for 2-3 hours, when it is yellowish brown in colour. If the water has become reduced to less than 10 gals. it must be made up to that amount. This concentrated solution may then be employed in the proportion of 1 pint to a gallon of water. In preparing the dressing the bag must not touch the sides of the boiler otherwise it would probably burn through and burst liberating the lime and sulphur and ruining the material and probably the boiler.

Another simple preparation consists in boiling together sulphur and washing soda in the proportion of 1lb of each to the gallon of water. Of the arsenical preparations Cooper's sheep dip may be used, or a crude Fowler's solution (1% white arsenic dissolved with the assistance of caustic potash). A mercurial soap is frequently used with excellent results: it consists of equal parts of strong blue mercurial ointment and soft soap melted together and thoroughly mixed. Of chloride of zinc a useful preparation may be made from Burnett's disinfecting fluid which contains 200 grs. to 3i by mixing 3xv-xx to a gallon of water, thus reducing it to either 4 or 5 per cent solution.

**Method of Application.** The animal should be isolated and a separate groom told off to look after the

affected animals. Wherever possible the coat should be clipped and the clippings should be burnt. The skin should next be well soaked and washed with soda and water and hard soap, to soften the scales as far as possible and thus allow the dressing to penetrate. The dressing should next be applied all over the body in the case of sarcoptic and psoroptic mange, owing to the impossibility of determining the exact limit of the spread of the parasite. The dressing should be repeated in four days and washed off at the end of a week. The skin should be left undressed for a few days, then the dressing repeated as before. In the case of psoroptic mange, if the dressings have been thoroughly applied practically all the parasites will have been destroyed, including those which have hatched out in the interval; so that in from 2-3 weeks in psoroptic mange all the parasites should be destroyed, and all that remains is for the hair to grow again. In the case of sarcoptic mange it is usually necessary to continue the treatment for a further similar period owing to the different life history of the parasite. The Board of Agriculture recommend the application of the lime and sulphur dressing by means of a spray, and suggests that by this method it is unnecessary to clip the horse, since if the spray is directed in the opposite way to the hair it will be driven close into the skin, and the thicker coat assists in the retention of more fluid and therefore is more effective in destroying the parasites. In my experience the application by this method requires assisting by rubbing of the lotion into the skin since most of the liquid runs off the coat as applied. A good plan and probably the best, is to give two dressings of the oil, sulphur, and tar, and use the spray for subsequent dressings twice each week.

During the course of treatment the exhaustion and emaciation must be counteracted by a generous diet and the administration of a course of tonics, including arsenic; but in bad cases in spite of all vigorous attention horses will become cachectic, weak and may die.

In France the method of treatment by fumigation with sulphurous acid gas has been recommended and good results claimed for it. After clipping and washing, the horse is placed in a loose box with his head protruding through a tarpaulin sheet; otherwise the box is as nearly air-tight as possible. A quantity of concentrated sulphur dioxide is then turned on into the box and the horse is kept exposed to the gas for two hours. The head is subsequently dressed with a 10% solution of creosyl in oil. The cure is said to be effected fairly rapidly by this method.

**Symbiotic Mange.** Owing to the more limited distribution of this form the treatment is simpler than that of the other forms of mange, but the same dressings will be found equally effective. Wherever possible the hair should be removed from the legs first, and the application must be repeated several times with intervals of a few days.

A very important part of the treatment for mange consists in the attention to the stables, clothing, harness, grooming utensils, and any place on which an animal may have rubbed, including the shafts of the various vehicles. These should all be very thoroughly disinfected. After which the stalls and boxes well swept out and the sweepings burnt. For disinfection of the premises the Board of Agriculture recommend a thorough washing with a 4% minimum solution of carbolic acid containing not less than 95% of actual carbolic acid. It should be pointed out that lime wash is of itself not a disinfectant, and that to be effective it should contain not less than 4% of carbolic acid. The clothing, harness and utensils should all be exposed to a similar potent parasiticide in a large tank. Any half-hearted attempt at disinfecting these articles is fore-doomed to failure.

Relapses after apparent recovery from mange not infrequently occur. A few parasites may survive the

treatment, but as they take a long time to become sufficiently numerous to cause fresh symptoms the relapse may not be apparent for several months. It is therefore doubtful whether an apparently recovered animal should be reintroduced into a healthy stud in less than three months. It may not, however, be practicable in many cases to carry out this principle.

It is well to point out that although the measures recommended for the treatment of mange appear to be comparatively simple, those who have had much experience of the disease know full well that they are by no means as simple as they appear, and that with all care results are frequently very disappointing. There appears to be no royal road to success; thoroughness, patience, and perseverance, together with a judicious use of parasiticides, will, in the majority of cases, be rewarded by success.

In answering questions that followed the reading of the paper, Prof. Wooldridge said he knew of no cases in which horses had caught a chill after being dressed all over.

The CHAIRMAN said he quite agreed that the old tar, oil, and sulphur dressing was most effective.

Prof. WOOLDRIDGE answering other questions said he had sometimes found lice and the mange parasite on the same horse. Generally the mane and the tail ought to be clipped in the case of parasitic mange. It was not practicable to take all the hair off a horse's tail as a rule but if that was the only way by which good results could be obtained by all means let it be done, because it would expedite the cure. It was more difficult to treat in the mane than in the tail, although there was likely to be a good deal of trouble at the base of the tail. He much preferred rape oil to train oil.

Mr. WALLIS: I have used a good deal of train oil and never found it do any harm.

Prof. WOOLDRIDGE: I have used it and got blisters.

Mr. WALLIS: The pre-war train oil never did that.

The Hon. Sec.: But the war train oil does.

Prof. WOOLDRIDGE: Even the rape oil is not so good as it used to be.

Mr. WALLIS: What about linseed?

Prof. WOOLDRIDGE: It is a drying oil and blisters the skin. An ideal oil would be olive oil, but it is far too expensive.

Mr. WALLIS: Will train oil and rape oil mixed do?

Prof. WOOLDRIDGE advocated the use of eusol as the finest and cheapest solution. It was perfectly safe and non-poisonous. It could be used on the frailest dog and cat, on any sort of wound, and to swab out the peritoneal cavity. It could be used in eye and in ear cases. It would sweeten the most stinking wound in a few moments. It was made of 1oz. chlorinated lime, 1oz. boric acid, and water to one Winchester quart. It must be filtered after three hours when it would become a perfectly clear water-like solution. It would keep potent for several months if properly corked up. At the College he used more of that than of all other disinfectants put together. They must not, however put their instruments into it. It turned blood green.

Mr. WALLIS mentioned that some weeks ago he had a fire in his office and discovered that drugs and instruments in his house were not covered by his fire policy. He mentioned this for the information of members. As an old insurer the company paid him, but they were not bound to do so.

After reading the paper, Prof. Wooldridge exhibited under the microscope the various types of mange parasites, and also specimens of the harvest bug, horse lice, hay mites and meal mites, fowl acari, and stained sections of hair affected with ringworm.

He also exhibited a spraying pump of the kind recommended by the Board of Agriculture.

A hearty vote of thanks was unanimously passed by the members present to Prof. Wooldridge for coming down and giving them such a splendid paper, which the Professor briefly replied to.

HY. P. STANDLEY, Hon. Sec.

#### NORTH OF IRELAND VETERINARY MEDICAL ASSOCIATION.

##### RESOLUTION.

Passed unanimously at a General Meeting of the members of the North of Ireland Veterinary Medical Association, held at Belfast, this 28th day of March, 1919:—

"That this meeting place on record its appreciation of the action of the Government in introducing the Ministry of Health Bill, and its application to Ireland. Further, having regard to the invaluable assistance heretofore rendered by the members of the veterinary profession to the cause of public health, and to the important part which they must in the future undertake in the matter, would point out the necessity of having the words 'And a member of the Royal College of Veterinary Surgeons' added to clause (d) of subsection 2; and at least one member of the veterinary profession on the Irish Public Health Consultative Council; and this meeting requests the Government to provide in said Bill for such representation.

That copies of this resolution be forwarded to the Prime Minister, Dr Addison, the Chief Secretary for Ireland, the Attorney General for Ireland, and the Ulster Members of Parliament."

Belfast, 31st March, 1919.

#### GLASGOW VETERINARY COLLEGE.

At a meeting of the Board of Governors of the Glasgow Veterinary College held in Glasgow, Sir Hugh Shaw Stewart, Bart., C.B., presiding, a report was submitted by the representatives who had attended the recent conferences held at the office of the Highland and Agricultural Society in Edinburgh regarding the proposed national scheme for research into diseases of animals. The report stated that there were present representatives from the Highland Society, the Scottish Chamber of Agriculture, the National Farmers' Union, and the two Scottish Veterinary Colleges, and that subsequently these representatives had conferred on the subject with the Board of Agriculture at the office of the Board, who were in full sympathy with the scheme.

It was decided to hold an opening lecture at the College at the commencement of the new session in October next, and it was left to Professor Glaister of Glasgow University, and Professor Gaiger, of the College, to make the necessary arrangements. No opening lecture has been held since the commencement of the war.

#### VETERINARY POLITICS.

Sir,—This week's *Record* is very depressing reading. Nearly all its space is taken up with the reports of the Eastern Counties and Central Societies, and what did their proceedings amount to? The Eastern Counties' men were bad enough. They were largely occupied in discussing the eternally recurrent question of insurance companies' fees; but, as usual in veterinary debates upon this subject, there was little evidence that anyone realised certain obvious truths which will *always* prevent insurance companies from offering terms really satisfactory to the profession. The members of the Central Society were still worse. They were discussing,



"the situation of veterinary politics," and how much clearer did they make it? Many "grievances" were enlarged upon, but how many suggestions to remedy them were put forward? There was plenty of talk of what ought to be done, and too little thought of what could be done. I have never read a series of more strikingly futile speeches, and none were much more so than those of the two candidates for Council. The collective wisdom of the meeting may be judged from the fact that the retrograde scheme of "district representation" received universal approval. How that proposal, if it could be carried into effect, could be expected to remedy existing "grievances" is beyond comprehension; and certainly it would tend to put smaller and narrower men on the Council. The system of societies running candidates for the Council has given us many mediocrities and some nonentities; that of district representation would give us a still larger number of both. The only good thing to be said of district representation is that it is not so dangerous as another policy which was advocated at the meeting, and recently also in other quarters—the policy of a veterinary strike. It is time for us to ponder where *that* advice is likely to lead us.

On March 22nd you published a letter signed "Fra Diavolo," which was a most curious mixture of very bad and very good advice. The bad, of course, was that we should return to advertising, and lose most of our professional status by adopting trade methods. The best part of the good is the single sentence "If members of the profession had the instinct for combination so highly developed in miners, *still they could be done without.*" The italics are mine, and no wiser words than those could be spoken to the profession just now.

For we *could* be done without. We are a useful body whose utility is not yet fully recognised; and, even if it were, we are not and never shall be indispensable. Insurance companies, upon whom we so urgently press our claims, could do without us. Some, including, I think, at least one of the largest, do so now; *all* will if we insist upon terms that would make their contracts unprofitable. The public could do without us; we know that many owners habitually do so, and more will if we persist in demanding more than they think we are worth. Let us remember that veterinary schools and trained veterinary surgeons have only existed a few generations, that for by far the greater part of the world's history all veterinary work was done by empirics, and that throughout that period the work itself was more important economically than today—and let us be warned in time.—Yours faithfully,

"DAGONET."

#### COUNTY COUNCIL FEES AND MILEAGE.

To the Editor of "The Veterinary Record."

Sir,—May I appeal through the medium of your Journal to secretaries or other members of Veterinary Medical Associations as to what the County Council fees and mileage are in the counties they embrace, as there appears to be a great diversity of charges; we in the west do not think we are being paid sufficiently and would like to know what other counties are receiving. I do not see why there should not be a universal fee throughout the country, and if our "Veterinary Parliament" would take this matter up and the question of fees generally, I am inclined to think the subscriptions to the R.C.V.S. would increase very considerably. A post card reply will oblige. Thanking you in anticipation.—Yours faithfully,

WM. ROACH.

President Western Counties V.M.A.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Mar. 25.

H. Andrew, London, S.W. 1.	£1 1 0
T. J. Brain, Cheltenham.	1 1 0
J. J. Crowhurst, Stratford-on-Avon	1 1 0
F. L. Gooch, Stamford Baron.	1 1 0
J. Hammond, Bale.	1 1 0
F. Lindsay, Capt. R.A.V.C.	1 1 0
J. E. Mills, Cæraws. 1918, 1919	2 2 0
R. B. Nelder, Exeter.	1 1 0
W. B. Nelder, Capt. R.A.V.C.	1 1 0
C. A. Powell, Woburn.	1 1 0

" " 1918 (omitted from last year's list) 1 1 0  
Previously acknowledged £877 18 0

£890 10 0

April 2.

W. Anderson, Keith, Banff.	£1 1 0
A. H. Berry, Board of Agriculture	1 1 0
W. G. Evans, Capt. R.A.V.C.	1 1 0
J. W. McIntosh, London.	1 1 0
J. F. Rees, Carmarthen.	1 1 0
W. Roots, London, S.E. 1.	1 1 0
M. Tailby, Birmingham.	1 1 1

Previously acknowledged £890 10 0

£897 17 0

#### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND. 10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged:—

N. Almond, Kingstone	£1 1 0
H. Andrew, Borough	1 1 0
A. Baird, Major	1 1 0
R. Barron, Blandford	1 1 0
E. W. Bovett, Bridgwater	2 2 0
J. Brown, Invergordon	1 1 0
M. J. Cleary, Rathdrum	5 0 0
S. H. Gaiger, Glasgow	2 2 0
F. L. Gooch, Stamford	1 1 0
G. Gordon, Capt.	2 2 0
J. Hammond, Bale	1 1 0
W. James, Llanybyther	10 0
A. Lawson, Manchester.	2 2 0
R. N. Lewis, Major	1 1 0
W. L. Little, Capt	1 1 0
E. Peacey, Board of Agriculture	2 2 0
J. Peddie, Major, Auchterhouse	1 1 0
T. S. Price, Brixton	10 10 0
J. R. O. Reali, Bristol	10 0
T. F. Spencer, Kettering	2 2 0
H. Thomson, C.B., Maj. Gen.	2 2 0
F. J. Thornton, Dorchester	1 1 0
P. Vincent, Romford	1 1 0
E. A. West, London	1 1 0
J. B. White, Hatfield Broad Oak	10 6
G. Whitehead, Batley	1 1 0
E. C. Winter, Capt.	1 1 0
W. Woods, Wigan	5 0 0

£52 9 8

Previously acknowledged 60 10 0

£112 19 8

	April 2.
A. S. Adams, Dursley	£2 2 0
W. Anderson, Keith, Banff	1 1 0
J. H. Bennett, Romford	1 1 0
J. A. Edwards, Capt. R.A.V.C.	1 1 0
W. Logan, Major, Inverness	2 2 0
J. F. Rees, Carmarthen	1 1 0
W. Robertson, Kirkintilloch	1 1 0
R. A. Thrale, Croydon	1 1 0
Previously acknowledged	£112 19 6
	£123 9 6

Erratum.—In the list appearing on March 22nd, the subscription entered from "A. L. Farrant, Hove," should have been entered "A. L. Farrant, Major, C.M.G. Corps."

### ARMY VETERINARY SERVICE

Buckingham Palace, Mar. 20.

His Majesty held an Investiture in the Ball Room of the Palace at 11 o'clock.

The following were severally introduced into the presence of The King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

THE MOST DISTINGUISHED ORDER OF  
ST. MICHAEL AND ST. GEORGE.

Col. WILLIAM ANTHONY. Lieut.-Col. ALFRED HEAD.

### OBITUARY.

JOSEPH WOODGER, M.R.C.V.S.,

Graduated Lond: May, 1860.

Mr. Woodger died on 26th March, at 60 Sutton Court Road, Chiswick, aged 79.

DELANEY, GEORGE JOSEPH, M.R.C.V.S., Ballyhaunis, Co. Mayo.

Graduated Dub: Dec., 1914.

Died November, 1918.

The late Mr. K. P. Rankin.

Mr. Kenneth Rankin, inspector Board of Agriculture and Fisheries, was the fourth son of late Rev. Robert Rankin, B.D., of Lamington. Mr. Rankin was held in very high esteem. He was a faithful and trusted officer of the Board of Agriculture, thoroughly conscientious, and having a wide veterinary knowledge, which he applied with caution and firmness. Prior to his death he was investigating the serious outbreak of rabies in the South of England.—N.B.A.

CASE—On March 24th, at Cobham Lodge, Munster Road, Fulham, Queenie, the darling only child of Mr. and Mrs. A. Case, aged 9 years. After 5 days illness.

### Personal.

MOORE—Lily Mary Patricia, wife of Captain Roger Moore, R.A.V.C., of a son, at Harrington Square, 26th March.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confrmd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered.*
	Dogs	Other AnmIs											
Gr. BRITAIN.													
Week ended March 29	3		3	4			2	15	124	264	11	18	6
Corresponding week in	1918		3	3			1	1	106	185	7	15	6
	1917		13	13			1	1	64	131	12	45	16
	1916		14	18			1	2	48	115	1	105	315
Total for 13 weeks, 1919	27	3	51	70	19	106	3	16	2118	4313	193	275	95
Corresponding period in	1918		86	100			9	30	1856	3592	201	195	76
	1917		180	211			8	13	1021	2159	322	552	196
	1916		168	201	1	24	19	58	1001	2474	149	1078	3376

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, April 1, 1919

† Counties affected, animals attacked:—London 2  
Excluding outbreaks in army horses.

IRELAND. Week ended March 29	Outbreaks		Animals	Animals	Animals	Animals	Animals	Animals	Animals	Animals	Animals	Animals	Animals
	3	7											
Corresponding Week in													
1918	1	2	1	2	1	2	1	2	1	2	1	2	2
1917	2	12	3	3	3	3	3	3	3	3	3	3	23
1916	...	7	6	6	6	6	6	6	6	6	6	6	30
Total for 13 weeks, 1919	...	114	14	14	14	14	14	14	14	14	14	14	47
Corresponding period in													
1918	45	135	6	6	6	6	6	6	6	6	6	6	26
1917	15	166	58	58	58	58	58	58	58	58	58	58	367
1916	22	172	59	59	59	59	59	59	59	59	59	59	294

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, March 31, 1919  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1605.

APRIL 12, 1919.

VOL. XXXI.

## THE ROLE OF "THE NATIONAL."

One of the most hopeful signs of the changing conditions at the present time is the resumption by the National V.M.A., of its normal functions, which have necessarily been in abeyance during the absence of so large a proportion of its members.

In our issue of last week, Prof. Wooldridge described the action of The National V.M.A. with regard to insurance companies' fees, and asked local societies to take certain steps to strengthen the hands of the central body. In the same number Mr. Roach, the President of the Western Counties V.M.A., asked other local societies for information concerning County Council fees and mileage. He did not mention the "National," to which his own society is affiliated; but obviously the "National" could be quite as useful in dealing with County Councils as with Insurance Companies. It is more than questionable whether the Council R.C.V.S. would concern itself with either question, and reasons can be advanced against such action. The "National" could undertake both; and, with its organisation, should be a much more effective instrument for any such work than the College Council.

A uniform scale of fees throughout the country covering all the requirements of general practice is a more than doubtful proposition: the difficulties of establishing such a scale are great. Uniformity as regards some special branches, such as County Council or Insurance work seems much more feasible. The "National," from its extensive local connections, could do excellent work towards this end; but in this, as in all questions of fees, the support of the profession is essential. It is necessary to be made clear that the "National" is representative of all the societies. Prof. Wooldridge indicates that some difficulty on this score has already arisen in the negotiations upon insurance fees, and offers useful suggestions to remove it. The same point might arise with County Councils, and could be met in the same way. At present the "National" is not unassailable in this respect, but the local societies could soon make it so.

Another difficulty may prove much more serious. This is what Prof. Wooldridge euphemistically calls "lack of united action on the part of some members, and of veterinary surgeons not members of the association or its branches." This factor may not have much, if indeed any, effect as regards County Councils; but it is clear that it must be reckoned with as regards Insurance Companies. The first and best method of dealing with it is by working to increase the strength and influence of The National and all its branches.

## THE REGISTER R.C.V.S.

Copies of the Register for the current year are now issued. Like its predecessor, it is a "war" issue, shorn of much of the supplementary information which we have grown accustomed to look for in late years; but it is hoped that next year there will be a return to better conditions. The number of names registered is 3359, against 3381 of the last issue; and this includes 22 names of members whose present address is unknown to the Registrar. Members who can assist in the matter are asked to send the information to 10 Red Lion Square. In this connection it should be remembered that entry on the Register—not the possession of the diploma—is the legal evidence of qualification to practise (V.S. Act 1881, Sec. 9).

The list of members admitted since last issue contains 44 names: and the obituary list has 67 names, of which 16 were deaths while "on service." There are also the names of Prof. A. Degive, and Prof. A. Liautard, Honorary Associates R.C.V.S.

Recent reports of Council meetings show the probability of an increasing number of entries of students at the Veterinary Colleges, but obviously, several years must elapse before there can be any material increase of practitioners on the Register.

Register III—"Existing Practitioners," shows a decrease from 145 to 137 during the year, a rate which has shown little change for the past five years.

## ON PROPAGANDA WORK.

The very interesting address by Mr. J. W. McIntosh on "The situation of Veterinary Politics," and the discussion which followed, may well point a moral, and I think one can hardly emphasize too strongly some of the comments made by Professor Macqueen.

General complaints about the social position of the profession leave me quite cold. I can remember to have heard the same things nearly forty years ago. The forms change but they are all fundamentally the same. It appears actually that the social position of the veterinary profession is precisely that of any other profession, which is, that each individual member's social position is only personal to himself.

The political position is a very different matter indeed. In this sense the profession in France (I mention that country because I have been resident there for thirteen years) occupies a very good position indeed.

The position in most of our colonies is very satisfactory, and in Australia, in New Zealand and in Canada, the profession has a great deal of influence.

The political position in the United Kingdom seems to be generally admitted to be very unsatisfactory. I am one of those who believe our political position in this country to be entirely bad, and our influence very small; and I attribute this to the apparent fact that our existence is almost unknown to the public. To lead the life of a hermit is a luxury one must pay for sooner or later, and our general policy of obscurity has already pushed us to the verge of bankruptcy, and will, if continued, put us over the edge.

I agree with Prof. Macqueen that to blame the Council is unjust, since that body has no power in this particular matter except in the elimination of unfit elements, and in that matter it seems to be perfectly capable and zealous.

Prof. Macqueen said "What was required was propaganda work." I believe that to be the root of the whole matter, since every profession (except our own) and every institution (except our own) appears to advertise itself constantly, by means of printers' ink or with the aid of artists' work.

During my lifetime I have seen only one solitary account in the press of any British Veterinary College, which could be called in the least instructive or attractive to the public. This was a small article in the *Cornhill Magazine* (I think in 1882) on the work of the Royal Veterinary College, London. It was somewhat sketchy, but was well written, and illustrated with some good drawings by Corbould, the well known animal artist and illustrator. After that brief incursion into public life we subsided once more into more or less oblivion, and none of our Colleges or Veterinary establishments appear since to have imagined that the general public would be at all interested to hear anything about them.

The Army Veterinary Service is, and always has been equally a bad example, and this is further emphasised by the fact that most other branches of the Army have been constant subjects for the press and the illustrator, while it alone avoids the limelight.

Prof. Macqueen says we must first induce members of the profession to take an interest in it themselves. That is quite evidently the first thing necessary, and if they did so, and took a pride and a pleasure in the profession as such, they might also find a pleasure in taking the public into their confidence by means of every kind of propaganda work.

The danger of advocating propaganda work is its tendency to assume a spasmodic type. It should not consist of one spasm, such as happened in 1882, and then be dropped for thirty seven years. It is better to at once fall in with modern habits, and conduct our propaganda work in the various ways and with the constancy so admirably exhibited by most other professions.

At the present moment it is not too much to say, that the work of our Army Service, our Civil service, and our educational establishments, is to all intents and purposes unknown even to a large number of members of the profession. The dull reports occasionally issued are unfitted, and apparently not

intended for ordinary consumption, and are in any case seldom if ever read by anyone but the writers, and the printers.

The nature of our work, its vitally humanising interests, and its very picturesque surroundings, give us an opportunity for possibly far more attractive propaganda than can, in the nature of things, be enjoyed by almost any other profession. We have, and always have had the most priceless opportunities, of which, if we had ever taken even a small advantage we should certainly not now be complaining of lack of political influence or of public appreciation and sympathy.

The big public, either in this country or any other, cannot show understanding of, and sympathy with, persons or institutions which do not plainly reveal themselves and their work in the daylight. A general public is always big hearted, and is always highly appreciative of courage and sincerity, but wants to be told all about things, and is not interested in hermits, or in institutions in back streets with closed doors, and hermetically sealed museums. Probably the greatest opportunity we ever had occurred during the late war.

We had the most emphatic lead given to us. The French Army, quite early in the war, engaged a large number of well known artists, and as a result the republic now possesses an enormous collection of invaluable drawings and paintings dealing with every phase of Army life in war time. So far as our own, and medical services are concerned these may be divided into three sections.

1. Pathological and surgical drawings and paintings.
2. Paintings and drawings illustrative of work in the field, in hospitals and transport,
3. Portraits of distinguished officers and men.

I quote the French Army because it certainly has the largest collection of the kind in the world; but the same thing has been done more or less by all the civilised (and some of the uncivilised) armies engaged.

In our own Army the R.A.M.C., more than three years ago, commenced the same kind of work. The result is that although they do not possess the number of works owned by the medical department of the French Army, they have a large number of very fine ones. I have personally examined many of them, and we have certainly never before had anything like them in this country in point of merit or scientific importance.

Also, in our own Army, official artists were engaged who have profusely illustrated the work of apparently every branch of the service except our own. Many of these have already been exhibited to the public at special shows. A large number of these pictures will be preserved in the Imperial War Museum, and will be for all time of great historic value and interest.

One may well ask What have we done in this important matter? How shall we be represented in the Imperial War Museum? And what pathological and surgical drawings and paintings have we to compare in any way with those of the R.A.M.C.

I think I am correct in stating that in this instance we fully acted up to our ancient traditions by doing nothing whatever. So our most recent and priceless opportunity for propaganda goes to join the ghosts of our many other lost chances.

So our pathological and surgical progress receives no kind of emphasis in accordance with modern methods, either with the public or ourselves.

The only pictorial records of the innumerable interesting conditions obtaining during the war, probably consist of a few amateur drawings privately owned.

It is now a matter of common knowledge that the most impressive of all propaganda work is done by means of pictures. Both the educated and the uneducated find their attention arrested immediately by vigorous and live drawings or paintings. A general understanding of the whole subject is taken in at once, and more or less indelibly fixed on the memory.

Written or verbal descriptions of our work are also indispensable, but they can never impress the public mind in the same degree as a vivid pictorial representation of that work actually taking place does. Further, written or verbal descriptions can only reach a very small public, however energetically they may be issued. A picture has the largest public of anything in the world, and appeals (in varying degrees according to their temperament) to all sorts and conditions of men, from the Archbishop of Canterbury to the ragpicker.

We need not have the slightest fear of public opinion, or of over-educating the people (which would indeed be difficult); but accurate knowledge of ourselves and our work is greatly needed in many directions, and it is urgently needed in one direction where it is highly important there should no longer continue to be so great a lack of it, and that is in the House of Commons.

This is not the fault of the House of Commons, it is entirely and absolutely due to our own traditional apathy. Had we been in the habit of allowing the public to know the ordinary, and interesting facts connected with ourselves, our work, our progress and our hopes, we should not only have gained greatly in influence, but we should have no miserably financed colleges, no need of crying to the already much harassed State for help, and no danger of losing that most priceless thing of all—our independence.

HENRY C. WILKIE, F.R.C.V.S., F.Z.S.

#### SALE OF ARMY HORSES: AN EXPERIENCE.

On the 28th of March there was a sale of repatriated army horses at Haywards Heath, the animals having only arrived in this country from France about 14 days previously. Amongst the consignment was a brown mare about 15 hands, a good looking animal in fine condition, not lame, and judging by the mark of harness on the shoulders evidently a good worker. As a client of mine wanted such an animal for his dog-cart he looked her over, and as he could see nothing the matter

with her decided to buy her at the auction sale. He had previously tried to find out from the attendant soldiers and the officer in charge if she was all right, but of course they could give no information as the horses had only been in the country a few days, and had been handed over to them for the purpose of the sale. My client purchased her at the auction for 38 guineas; the only warranty with any of the animals being the freedom from any contagious disease—no guarantee of soundness was given.

Next morning I was requested to see the mare, because after a short distance in the saddle she had bled from the nose. Examining her some little time after her return, I found that the Schneiderian membrane was very much injected, the temperature was 102, the pulse about 52; but the animal did not look ill, and she fed well. Some simple treatment was prescribed and the mare was normal in two days time, whereupon walking exercise for a quarter of an hour twice a day was ordered.

On the eighth day after the sale she was taken out of the stable, walked for 50 yards, then trotted for say a quarter of a mile when she suddenly came to a standstill with blood pouring out of both nostrils, and also the mouth when she coughed; the flanks heaved, the mare was greatly distressed. The blood was bright scarlet, and very profuse for some time. On auscultating the lung there were loud, vibrating rhonchi of various sorts, mostly low-pitched and piping.

The mare is absolutely useless. I cannot recollect meeting with any similar case, and I should be much obliged if anyone who has served over in France will write stating whether the symptoms indicate that the mare has been "gassed."

My client feels very sore about purchasing such a useless, deceptive horse. If the animal had been lame, or had a big leg, or been broken winded, it would have been different, but the fact that the horses came from France indicated that they had been working over there, and as a matter of fact all the rest have, as far as one knows, turned out quite satisfactory. The condition may, or may not have been in evidence in France, but presuming it had been, one would have thought the authorities would hardly have sanctioned the transportation to this country for the purpose of selling.

HENRY TAYLOR.

Haywards Heath, April 7.

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#### MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION. [NATIONAL V.M.A.—NORTHERN BRANCH.]

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The annual meeting was held at the Grand Hotel, Birmingham, on Friday, Feb. 28th. The president Mr. John Malcolm, of Birmingham, was absent on account of indisposition, and Mr. J. Martin, Wellington, the senior vice-president, took the chair in his stead. There were also present: Messrs T. H. L. Duckworth, Ashbourne; J. J. Burchall, Loughborough; T. Chambers, Dudley; W. H. Brooke, Handsworth; F. L. Gooch, Stamford; R. C. Trigger, Newcastle-under-

Lyne; J. Young, Birmingham; J. Cormack, Coventry; F. O. Powley, Sutton Coldfield; W. E. Ison, Atherstone; J. W. Conchie, Kidderminster; and the Hon. Sec. Mr. H. J. Dawes, West Bromwich.

Apologies for non-attendance were announced from Prof. Dewar, Messrs F. B. O. Taylor, T. J. Brain, W. Trigger, C. S. Hunting, W. Tart, J. R. A. Jones, R. Cockburn, L. W. Heelis, H. L. Pemberton, A. B. Forsyth, W. Grasby, H. S. Reynolds, H. B. Hiles, T. Ludlow, S. J. Marriott, R. Hughes, J. R. Carless, and J. Deville, and others.

The President wrote:

"I regret I cannot be at the meeting today, as the doctor forbids. Since our last meeting, our society has lost one of its pillars by the decease of Mr. W. Stanley Carless, of Worcester. He had taken a prominent part in the Society in connection with matters bearing on the well-being of the profession for the last 35 years. He was in many senses the ideal clinical veterinarian. I personally had come in contact with him in matters quite apart from our Society transactions, and found him a thorough gentleman and true friend. I have had a good few business transactions with him, in some of which he was acting on his own account and others on the account of clients, but it was characteristic of the man that in these transactions he was always keener on behalf of his clients than for himself. I regret we have lost another member bearing a well known name, I refer to Mr. James Blakeway, junior, of Stourbridge, for whose relatives one and all must deeply feel.

The meeting today will, of course, elect the officers for the coming year. We had all hoped that our absent members would have returned in such forces that new officers would have been elected, but seeing many are still absent it may be deemed advisable to continue the present lines for another year. I should like to say that I shall be very pleased to fall in line with whatever is decided upon by the meeting, and am prepared to continue to do the best I can for the Society in any circumstances."

On the motion of the Hon. Sec., seconded by Mr. Gooch, a message of sympathy was ordered to be sent to Mr. Malcolm in his illness, with an expression of the hope that he might speedily be restored to his accustomed health.

#### VOTES OF CONDOLENCE.

The Hon. Sec. said it was his melancholy duty to report the deaths of two very old and esteemed members of the Association in the persons of Mr. Stanley Carless of Worcester, and Mr. James Blakeway, junior, Stourbridge. He proposed that letters of condolence be sent in the name of the Association to their relatives. Mr. Carless was one of their oldest members, who acted as Hon. Sec. many years ago and later had filled the presidential chair. He continued to attend the meetings regularly and would be very much missed by those who had learned to admire him for his professional ability and his personal charm.

In the case of Mr. Blakeway, jun., there was a special note of sadness. He came safely through the war, then he was taken suddenly away. His brother, Dr. Harry Blakeway, of Harley St., London, died a few weeks ago, and the double blow to their esteemed father would cause their hearts to go out to him in special measure. He believed this was the first time in the long history of this Association that the name of Blakeway did not appear in the list of members.

Mr. TRIGGER, in seconding, spoke very feelingly of his old friend Mr. Carless. He said he did not know Mr. James Blakeway, jun., so well, but he remembered his grandfather as one of the founders and earliest officials of this Association, and also his father and uncle. He was quite sure the profession was infinitely the poorer by the loss of two such distinguished men.

Mr. Chambers, Mr. Burchnall, and Mr. Gooch also added personal tributes, and the resolution was carried *sub silentio*.

*New Members.* The following gentlemen, nominated at the previous meeting, were unanimously elected members of the Association:

Mr. C. S. HUNTING, Loughborough, proposed by Mr. Cormack and seconded by the Hon. Sec.; and

Mr. J. R. A. JONES, Gloucester, proposed by Mr. Cormack and seconded by Mr. Brooke.

#### TO HELP OUR ALLIES.

Mr. TRIGGER, in accordance with notice duly given, moved, "That a further sum of £10 be given to the Anglo-Franco-Belgian Veterinary Relief Fund." He said he was sure it would appeal to every member of the profession, who can form but an inadequate conception of what their brethren in France and Belgium have suffered by the war. They were left absolutely penniless. Up to the present about £400 had been forwarded, but from the profession in this country, numbering something like 3000 members, he thought at least £1000 ought to be raised.

The Hon. Sec. seconded. He said the Association voted ten guineas two years ago and he was pleased to think that the state of their exchequer would warrant this further assistance. (The motion was carried *unanimously*.)

#### TREASURER'S ANNUAL STATEMENT.

The Hon. Treasurer (Mr. BURCHNALL) submitted his statement of accounts for the past year, duly audited. This showed members' subscriptions £30-10-0, interest on War Stock, £5, and bank interest £1-14-6. This, with a sum of £93-8-8 brought forward from the previous year, brought the assets up to £130-13-2, exclusive of the capital sum of £100 invested in War Stock. The items of expenditure were as follows: Annual subscription to Victoria Veterinary Benevolent Fund, £5 5 0; Affiliation fee to National Veterinary Association, £3-19-0; special donation to Victoria Veterinary Benevolent Fund, £10-10-0; donation to Army Veterinary Corps Comforts Fund, £7-7-0; secretary's expenses, £25-7-0; Treasurer's expenses £1-2-3; cheque book 2/-; making a total of £53-12-3, and leaving a sum of £77-0-11 to carry forward, or a deficit on the year's working of £16-7-9. This, Mr. Burchnall explained, was due partly to the special donations which would not necessarily recur, and to the fact that many members serving with the colours were temporarily excused payment of their subscriptions. The present membership was 92, compared with 105 a few years ago.

He asked to be excused from further service as treasurer, as his health was not as good as he could wish. He had filled the office for eleven years, and had taken the keenest pleasure in the work.

Mr. ISON, in moving that the balance sheet be adopted, said the Association was in a very sound financial position, notwithstanding the deficit on the year, which had been satisfactorily explained.

Mr. CHAMBERS seconded the motion, which was carried unanimously.

#### REPORT OF COUNCIL.

The Hon. Sec. presented the following report of the Council of the Association, held immediately prior to the general meeting:—

It is recommended (1), that the next meeting of the Association be held in Birmingham; (2), that the matter of a subject for discussion be left to the Hon. Sec. and President to arrange; and (3), that the officers of the Association be re-elected *en bloc* until such time as conditions are more settled than they are at present, except that Mr. F. L. Gooch be elected an auditor in succession to the late Mr. W. S. Carless.



A letter was read from Mr. Burchnall tendering his resignation as Hon. Treasurer, and it is suggested that Mr. W. H. Brooke be approached with a view to his filling the vacancy.

The question of income tax claimed by the Inland Revenue from the Association was adjourned until the next meeting, certain enquiries to be made in the meantime.

A letter was read from Mr. J. Hill, of Llanelly, inviting support of his candidature for the Council of the Royal College of Veterinary Surgeons, and it was resolved that he not being a member of this Association, his candidature cannot be officially endorsed.

A letter was read from the Derbyshire Veterinary Association re Insurance Companies' fees and other matters, and as Mr. Duckworth, representing Derbyshire, was attending the general meeting, it was resolved to await a statement from that gentleman.

Arising out of this report, Mr. Trigger said it would be a matter of general regret that Mr. Burchnall felt it incumbent upon himself to retire from the Treasurership, which he had held with so much credit for the past eleven years. He moved that his resignation be received with regret and that Mr. Burchnall be very warmly thanked for his past services.

This was seconded by the Hon. Sec., supported by Mr. Chambers, and carried unanimously.

The Hon. Sec. next moved that Mr. Brooke be elected to succeed Mr. Burchnall as Treasurer. Mr. Brooke, he said, would make an ideal treasurer, being thorough in all that he undertook.

Mr. Gooch seconded this motion, which was carried unanimously.

Mr. Brooke, in accepting the appointment, said he should rely very much on the assistance of the Hon. Sec. in the discharge of his new duties.

The election of the other officers, with the substitution of Mr. Gooch for the late Mr. Carless as an auditor, as recommended by the Council, was then agreed to *pro forma*, and on the motion of Mr. O'Neill, seconded by Mr. Young, a vote of thanks was passed to them for their promotion of the Association's welfare during the past twelve months.

The report of the Council was then adopted *in toto*, on the motion of Mr. O'Neill, seconded by Mr. Conchie.

#### INSURANCE COMPANIES' FEES.

Mr. DUCKWORTH said the veterinary surgeons of Derbyshire and the immediate neighbourhood had recently formed an Association to further their professional interests, and two meetings which had already been held had been well attended. One thing they had done, was to fix on a scale of fees among themselves and it was working very well, and now they were trying to agree on a uniform charge to insurance companies for the examination of animals. They thought it was high time that veterinary surgeons revolted against the ridiculously low fees that were allowed by some companies, but recognised that any action, to be effective, must have the united support of the profession as a whole. The Derbyshire Society had written to all insurance companies stating that their members would not undertake any examination at a less fee than 10/6 for each animal. That fee was to include mileage, it being understood that they did not make a special journey, but visited the case when next they happened to be in the district.

Mr. Gooch, whilst agreeing with the Derbyshire Society, and endorsing every word that had been said about the inadequacy of the fees that were sometimes offered, thought a hard and fast rule would hardly do. A horse, the property of a poor client, might be insured for only £12, and another for £1000. Were they to hold out for a 10/6 fee in those two extreme cases?

Mr. DUCKWORTH said if the premium would not stand

a 10/6 fee, the insurance company could accept the animal without an examination. As for the examination of very valuable animals, it was not intended that the 10/6 should be other than a minimum fee.

The Hon. Sec. said he should like to thank Mr. Duckworth and the Derbyshire Society for bringing this matter forward. It had been argued that veterinary surgeons accepted a small fee because they were generally dealing with their own clients, but he thought that was not a good excuse. He quite agreed that the time had come when they should make a stand, but it was only by unity that they would get their professional due in this matter.

Mr. O'NEILL suggested that the fee might be regulated according to the amount of the policy of insurance, but he certainly was of opinion that half-a-guinea was the smallest that a professional man should accept. He could speak freely on the subject, because he was outside such a controversy. Was not this a subject which the National Veterinary Society might usefully take up?

Mr. ISON said he had no desire to justify the small fee that was paid in many cases, but it was only a very cursory examination that they were expected to make, and they never made a special journey. He agreed that some small premiums would not stand a 10/6 fee.

Mr. CONCHIE said he made it a rule not to make an examination under 5/- for each animal, plus mileage. He noticed that the medical profession were forming themselves into a trade union for the furtherance of their interests, and he thought veterinary surgeons might profitably follow that example. Other professions and callings could force the hands of the Government by unity of action. Why should not veterinary surgeons, who were a very numerous body, be able to do likewise? If they did not look after themselves, they would be left behind in the great work of national re-construction that was now going on.

Mr. TRIGGER, whilst agreeing in principle with Mr. Duckworth, thought there was something to be said, as Mr. Gooch had suggested, for the poor and struggling client. For a horse belonging to a *bona fide* working-man he thought a fee of 5/- might be accepted, for they all knew that the cost, in the long run, was not borne by the companies but by the owners.

The ACTING PRESIDENT said this was a question which bristled with difficulties. Personally, he took an individual case on its merits, and if it was not worth his while to undertake it, he did not do so. The increased value of stock must mean a considerable increase in the revenue of the insurance companies, and he was willing to support any reasonable proposition that might be put forward. He thought it should be on a percentage basis.

The Hon. Sec. said he was strongly in favour of supporting the action of the Derbyshire Society in endeavouring to establish a minimum fee of 10/6 for the examination of animals for insurance. He thought it would be a good subject for the agenda for the next meeting. He moved that it be brought forward then, and that in the meantime members be asked to hold out for a 10/6 fee.

This was seconded by Mr. Chambers and carried unanimously.

#### PETROL FOR VETERINARY SURGEONS.

Mr. DUCKWORTH said that another matter which the Derbyshire Society had discussed was the cost of petrol, and they had decided to approach the proper authorities with a view to veterinary surgeons being accorded the same favoured treatment as traders.

It was resolved that this question also be raised at the next meeting.

#### VETERINARY POLITICS.

The Hon. Sec. mentioned the Ministry of Health Bill, and a discussion took place in regard to same.

Mr. POWLEY said if they did not take action at once, it would be too late. He urged that veterinary surgeons should do as the medical profession was doing—form some sort of trade union to push their claims for proper recognition. He should have thought the National Association would be up and doing before this.

The Hon. SEC. said it was clearly a matter for National effort: if left to individual Associations, too much valuable time would be lost, as the Associations only met at considerable intervals.

Eventually, on the proposition of Mr. Powley, seconded by Mr. Duckworth, it was decided to form a small Sub-Committee with power to act.

It was further resolved, that the Committee should consist of the following:—The President, the Hon. Sec., Mr. Brooke and Mr. Chambers.

#### COUNCIL OF R.C.V.S.

Mr. R. C. TRIGGER said that Mr. Dawes had brought forward the question of the new Ministry of Health Bill and the necessity of carefully watching the interests of the profession by the Council. He (Mr. Trigger) said this was a new Bill and the draft not yet before them; but it was certain that it would have the careful attention of Council. Further, they might rely on Mr. Thatcher and Mr. Bullock to carefully note and report anything adverse to our interests. He further said that he would like to take the opportunity of saying a few words in relation to matters affecting the interests of the profession and the attitude of Council thereon. He said that whilst welcoming criticism and a more lively interest in the work of the Council, there had been a certain amount of criticism (not too kindly) of the work of that body, due, he thought, very largely to want of knowledge of facts, and he entirely failed to find any kind of constructive criticism—simply destructive. The chief subjects of complaint seemed to be—first: Teachers as members of the Council, and suggestions that they should be barred from office. This matter was entirely in the hands of the profession, as it was by their votes that teachers were returned. For himself he was, after a long experience, satisfied that their presence and suggestions are at times absolutely necessary; for unless some subjects were fully and fairly agreed before Council, a state of confusion or chaos might arise, between the Council and the Schools. At the same time whilst holding these views, he also thought that the Schools were over-represented. His present view was that one only should be allowed for each teaching school, and that when one school was already represented, no other teacher from that school should be eligible for nomination. As before said, the profession had the control of this matter entirely in their own hands.

The next criticism usually was on work of Registration Committee, and the putting down of quackery. The Council have no power at all to deal with quackery as such in this connection: they can only deal with men who in some way represent themselves as qualified to practise.

In other particulars, Council has been terribly handicapped for want of funds. For years now we have had to struggle on with very inadequate, or in fact practically no means. Prosecutions taken up by this Committee prove very expensive work, entailing as they do employment of solicitors in various parts of the Kingdom. Even when convictions are obtained (as they usually are) and costs allowed, such costs do not nearly repay amounts incurred. In this connection it may be mentioned that one case that went to appeal, though eventually given in our favour, appeal being dismissed, cost us round about £100. During the last few years we have had Public Health Bills watched by special committees; Army schemes watched and more satis-

factory conditions obtained; Milk and Dairy Bills amendments introduced, milk clauses opposed and finally struck out; later Milk and Dairies Bills, again amendments secured; Petitions re Motor and Petrol tax rebates eventually secured. Motor car licenses, rebate obtained; Petrol rebates as medical men, and here we are deeply indebted to Mr. Bullock, our most able secretary, for assistance in remedying grievances and obtaining supplies of rectified spirit at reduced rates; Coal Mines Bill, deputation to Home Office, V.S. to test for glanders. Some of these and the Milk and Dairies Consolidations Act involved lobbying, and of course thereby additional expenses. You have a scheme for provision of State Scholarships for veterinary students, first proposed by Council in 1918, now approved by Government for students generally; our profession has its representative on each of the twelve district advisory committees for selection of students for these grants. I do not think the Council can fairly be accused of being asleep. On the other hand I do think there is cause for complaint of the apathy of the profession—less than one third of the members subscribe to the College, and the subscribers are not the men who are grumbling. I can assure you that the vigilance of Registration Committee has been partly wasted for lack of funds. The Finance Committee's worries and anxieties are perhaps hardly realised; and only those who are on the Council can realise the enormous amount of time taken by Examination Committee and its frequent meetings.

All honour to those men who have subscribed and staved off disaster and kept the ship afloat through these last terrible years, until at last we can begin to hope that we may soon see a ray of light. Our Annual Fee Bill like many other non-Government Bills has been hung up, although re-introduced each year during the war. It is for the veterinary profession to use whenever possible influence with members of Parliament to secure support, as there will be an earnest renewed endeavour to get the Bill through this Session.

The Acting President proposed that the best thanks of the meeting be accorded to Mr. Trigger for his very interesting remarks. This was seconded by the Hon. Sec. and carried unanimously.

#### INTERESTING CASES.

Mr. O'NEILL produced the first dorsal vertebra of a van horse, which was fractured as the result of an accident. The animal was in a pair-horse-van and the other horse ran away taking this one with it. The horse that bolted escaped injury, but this one ran its head into a wall. It seemed dazed, and he thought it was suffering from concussion. It was got on to its feet, and he thought it would come round, but it died shortly afterwards. The surprising thing was that the fracture should have taken place so far down.

The Hon. SEC. produced a long piece of wire taken from the body of a fox terrier puppy, eight weeks old. It was part of a hat pin and was nearly as long as the puppy itself. It was extracted by an operation which involved an incision in the chest. The opinion of the members was that the puppy had swallowed the hat pin knob first, and that in the process of extraction the knob had come off and been left in the body. The puppy, a valuable one, had made a complete recovery.

Mr. YOUNG showed a bad case of fractured tibia. The bad feature of this case was that before he was called in, the animal was treated by a man demobilised from the Army Veterinary Corps who professed to understand these things. The man had treated the patient, a valuable cart-horse, for abscess on the thigh, and he considered it a case of such gross cruelty that some action ought to be taken to prevent such a thing happening again.

F. L. GOOCH said: I was summoned to a farm at 11.30 p.m. to a Lincoln red shorthorn heifer unable to calve. Upon examination I found presented the internal viscera of the calf: all the abdominal and thoracic viscera were placed outside the body of the foetus. I removed all the viscera and found that the calf was doubled on itself, with all the limbs and head turned back in the uterus. I was just able to feel one hock, but found that every joint was stiff, and the only method for removal was to cut the foetus in halves. The heifer was worth nearly as much for beef as for a breeding animal, and I explained to the owner that it would be a difficult operation and might injure the heifer, and advised slaughter, which he readily agreed to. After slaughter the uterus was removed entire, and the foetus removed and photographed.

Mr. CONCHIE showed a long piece of wire taken from the right ventricle of the heart of a cow, which before death presented all the appearance of a case of blind staggers.

Mr. CHAMBERS exhibited a large tumour, weighing 2lb, which the butcher found on the left ventricle of a cow's heart. A vote

of thanks was accorded to these members.

H. J. DAWES, Hon. Sec.

#### MINISTRY OF HEALTH BILL.

A meeting of the Committee appointed at the annual meeting of the Midland Counties Veterinary Medical Association in connection with the above matter, was held at Mr. Malcolm's office, Holliday Street Wharf, Birmingham, on Friday, March 7th, 1919, at 6 p.m.

Present—Mr. J. Malcolm in the chair; Messrs. J. O. Powley, W. H. Brooke, and H. J. Dawes. An apology was received from Mr. T. Chambers, Dudley. After considerable discussion it was resolved to send a copy of the following resolution to the Council of the Royal College of Veterinary Surgeons:—

"That this Committee is of opinion that the attention of the profession should be called to the Ministry of Health Bill now before Parliament—as tremendous issues appear to be involved, and apathy and inaction at the present juncture will seriously injure the future of the profession.

This Committee beg to suggest to the Council of R.C.V.S. that a strong representative Committee be formed to look after the interests of the profession in the passage of the Bill through Parliament—the Committee to consist of members of the Council of R.C.V.S. with any co-opted members thought desirable. The matter is urgent, and this Committee suggest that it be dealt with by a special meeting of Council.



#### LANCASHIRE VETERINARY MEDICAL ASSOCIATION (NATIONAL V.M.A.—NORTHERN BRANCH).

The combined Annual and General meeting was held at the Grand Hotel, Manchester, on Thursday March 6th. In the absence of the President, Mr. G. H. Locke, Mr. W. Woods, Wigan, was elected to preside. The attendance included Messrs Lawson, Hopkin, Carter, Hewetson, Sumner, Blakemore, Curbishley, Lieut. Col. J. W. Brittlebank, C.M.G., and Capt. E. H. Stent.

Apologies for absence were received from Messrs Darwell, Clarkson, Wharam, Wolstenholme, Abson, and Packman.

The consideration of the minutes of the last meeting was deferred.

Col. BRITTLEBANK proposed that a vote of condolence be forwarded to Mrs. Holburn, expressing their extreme regret at the sad loss she has sustained by the death of her husband. Mr. Holburn was an old friend and highly respected member of the Association, and wherever he went was always welcome and helpful in any proceedings that concerned the profession.

Mr. CURBISHLEY in seconding the proposal said that Mr. Holburn had been his nearest neighbour, and the district was a loser by his death. The resolution was passed in silence.

*Election of Officers.* Mr. Sumner proposed that the officers and Council be re-elected *en bloc*, except that the name of Mr. Hewetson be substituted for that of Mr. Holburn. Mr. Carter, seconded.

The names are as follows—*President* Mr. G. H. Locke *Vice-Presidents* Mr. W. Ackroyd, Mr. A. Noel-Pillers, Mr. J. H. Wright and Mr. H. G. Hewetson.

*Hon. Treasurer* Capt. E. H. Stent, *Hon. Sec. Lieut.* Col. J. W. Brittlebank. *Auditors* Mr. W. A. Taylor and Mr. J. Ingham. *Council.* The above officers together with Messrs J. Clarkson, T. Hopkin, A. Lawson, J. McKinna, A. Munro senr., W. Packman, H. Sumner, J. B. Wolstenholme and W. Woods.

*Treasurer's Report.* Capt. Stent stated he had no detailed statement to bring forward. There was about £22 in the bank. He submitted a list of members whose subscriptions are in arrear, and asked that consideration be given to the question of cancelling one or two years. There are about eighty-nine members on the books.

Mr. Woods pointed out that only one meeting had been held since the year 1914, and consequently no advantage accrued by being a member of the Association. He suggested that the subscriptions for 1915, 1916 and 1917 be not asked for.

Col. BRITTLEBANK agreed with the suggestion, and said every effort should be made to keep their members together. He thought there might be a tendency in the future to form numerous small associations, and so dissipate our strength.

Mr. SUMNER proposed that subscriptions for the years 1916, 1917 and 1918 be waived. Col. Brittlebank seconded. Carried.

Mr. SUMNER then proposed that the Executive be empowered to notify the members, to call in arrears prior to 1916 and to ask for subscriptions for the current year.

Mr. CARTER seconded the proposal which was adopted.

*Election of Council R.C.V.S.* Mr. SUMNER thought the time was opportune to nominate their President, Mr. G. H. Locke. He said all would have noticed a feeling of dissatisfaction in the profession regarding the work of the Council. There is, he said, even in the south, a section which is anxious to get on the Council with the intention of infusing new blood and new ideas, in the hope that their influence will make the Council more progressive. He thought this section would be a large one. He did wonder, however, in what respect the Council had fallen short of fulfilling its duties. As a Councillor, he considered it a good sign that the profession is showing more interest. He asked if the Lancashire Association was in a position to associate itself with kindred societies with a view to enhancing the chances of election of their nominees, Mr. A. Lawson and Mr. G. H. Locke. Both are eminently qualified, and he proposed that their nomination be recognised by the Lancashire V.M.A., and that it take every means in its power to secure their election.

Col. BRITTLEBANK, seconding, remarked that the happenings of the past four and half years will be largely responsible for an entirely new phase of ideas in a good many members of the profession. Many had had experiences of life which they had not had before, and the agitation referred to was an excellent sign, although he deprecated some of the expressions used in giving effect to opinions that certain people hold. The Royal College, like every other body during the past four years, has had to carry on its work under considerable difficulties. He was not pleading for himself, but he was perfectly satisfied that so far as it had been possible legitimately to carry on business the Council had done excellent work.

They in the north, would feel themselves honoured to support the two candidates whose names were now before the meeting, and he also wished to say that as an

Association they were entitled to use all legitimate means in their power to secure the successful return of both gentlemen; and he hoped that the Council would be authorised to take such steps as may be necessary, by combination with other associations especially, to see that both Mr. Locke and Mr. Lawson were elected to the Council of the Royal College of Veterinary Surgeons.

The prospects before the profession were, in his opinion, such as required high qualities of statesmanship. Practically every calling required reconstruction. In his opinion, the prospects before the Veterinary profession were excellent only if we are capable of firm determination to direct our energies in the proper direction, and to set before ourselves a high standard for attainment which is not unmindful of the public welfare.

The proposition was carried unanimously.

Mr. LAWSON thanked the members for their promise of support. He had been a member of the Council for twenty years, and had always endeavoured to attend the meetings and further the interests of the profession.

Mr. CURBISHLEY pointed out that one candidate suggests that expenses be paid.

Mr. SUMNER replied that in the present condition of finance this is quite impossible. They did not know what re-construction is going to do, or what the grants are going to be. It is humiliating to think they had to be kept alive by the subscriptions of members.

Mr. HOPKIN thought that the men who are getting up the agitation are the disappointed men.

Col. BRITTLEBANK asked was it not rather a political move, and did they not want to convert the Council into a political society. If they could do so and at the same time maintain it as a governing body, he would be satisfied.

#### PROPOSED PARLIAMENTARY BILL OF THE NATIONAL MASTER FARRIERS' ASSOCIATION.

The following extract from *The Farriers' Journal* for January, 1919, was considered:—

#### INTERIM RECONSTRUCTION COMMITTEE: FARRIERS AND BLACKSMITHS.

#### SCHEME FOR COMPULSORY REGISTRATION OF FARRIERS.

In accordance with the recommendations made in the Whitley Report, the Interim Reconstruction Committee which has been formed in the Farriers' and Blacksmiths' trade, consisting of representatives of the National Master Farriers' Association, the Irish Master Farriers' Association, and the Amalgamated Society of Farriers, hereby memorialise His Majesty's Government on the subject of the better training and registration of farriers.

Whereas during the past century—while almost every trade and industry has been advancing in improved and scientific methods of carrying on its operations—the farriery trade has been practically at a standstill, and although efforts have been made by the Worshipful Company of Farriers of London, the Royal Agricultural Society of England, the Department of Agriculture and Technical Instruction for Ireland, and a few other bodies, to establish a more scientific method of horse-shoeing, yet amongst the great body of the trade there has been no improvement; and

Whereas it is expedient in the National interest that horses should be shod in a scientific manner, because many thousands of horses are so injured by wrong methods of shoeing every year that their working lives are very materially shortened, it is deemed necessary that farriers (or shoeing-smiths) should receive technical instruction in the structure of the horse's foot and the scientific principles of shoeing, and

Whereas there is at present no organised method or means of obtaining this instruction and training, it is the desire of the said Reconstruction Committee that

His Majesty's Government forthwith introduce a Bill making it compulsory that farriers (or shoeing-smiths) shall undergo a course of training and fit themselves to pass an examination, before being allowed to practise the craft, and

Whereas the shoeing of a horse—besides requiring great mechanical skill in the making, fitting and nailing of the shoes—is a surgical operation performed on a living structure, and

Whereas such legislation has been passed in several of the British Colonies and in some of the countries on the Continent of Europe for the purpose of ameliorating the lot of horses and prolonging their working lives, the Farriers' and Blacksmiths' Reconstruction Committee make the following suggestions for the framing of an Act of Parliament for the Compulsory Examination and Registration of Farriers (or Shoeing-smiths):—

- 1 That the said Act shall be framed on the lines of the Veterinary Surgeons' Act, 1881.
- 2 That the Worshipful Company of Farriers of London (a Livery Company of the City of London Guilds, established in 1356 and Incorporated by Charter) shall be the Examination and Registration Authority for Great Britain and Ireland.
- 3 That the Registration Council shall contain among its members an equal number of members of the National and Irish Master Farriers' Association and members of the Amalgamated Society of Farriers, each and all of whom shall also be Registered Farriers by examination of the said Worshipful Company of Farriers.
- 4 That after the passing of this Act no person shall be licensed to practise farriery or engage in business or practice as a farrier (or shoeing-smith) unless he shall have served an apprenticeship of at least five years, and shall pass such examination—theoretically and practically—in the structure of the horse's foot and the principles of shoeing, as may be fixed from time to time by the Registration Council.
- 5 That any person over 30 years of age at the passing of the Act who has continuously practised farriery for not less than ten years, but is not on the Register of Farriers, shall be entitled within three months of the passing of the Act to be placed on a separate register under the heading of "Existing Practitioners," without examination, but shall not be deemed to be a licentiate of the Worshipful Company of Farriers.
- 6 That after the passing of the Act no person who is not licensed or registered by the Worshipful Company of Farriers shall use any name title, addition, or description by means of initials or letters placed after his name, or otherwise stating or implying that he is licensed or registered by the Worshipful Company of Farriers, or that he is a person specially qualified to practise as a farrier or shoeing-smith (under a penalty).
- 7 That it shall be incumbent upon all Technical Education Authorities throughout Great Britain and Ireland to supply facilities and instructors for the giving of lectures and demonstrations in the art of farriery at fair and reasonable fees.
- 8 That the said instructors, before being appointed, shall pass a special examination by the Board of Examiners of the Worshipful Company of Farriers.
- 9 That similar provisions, penalties, etc., as are included in the Veterinary Surgeons Act, 1881, 44 and 45 Vict., Chapter 62, shall also be embodied in the Farriers (or Shoeing-smiths) Act in so far as Clauses 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17, 18, and 19.

It may be pointed out that, in the interests of the horse-owning public, it is urgently necessary that some legislation should be passed without delay, as there is a very grave risk of the country being flooded with a large number of semi-skilled men when demobilisation takes place, who, if allowed to practice farriery without

restraint, will cause incalculable damage to horses and loss to the owners."

Mr. SUMNER thought nothing could be done until the bill was presented.

Mr. CARTER proposed that copy of the paper be sent to The Royal College, and to *The Veterinary Record* and *Veterinary News*. Mr. Hopkins seconded.

Col. BRITTLERANK was of opinion that they should go further. They should elect a small committee of gentlemen interested in this matter to watch the proceedings and bring forward a report. The report should not be confined to local consideration. They should then take steps to call a meeting of the Northern Division of the National V.A. At the same time they could set machinery in motion to see that every division considers the same thing. The whole of the resolutions of the Associations to be considered by the N. V. A.

In the period of reconstruction it will behove the profession to watch its interests closely, and legislation would have to be very carefully scrutinised, and he hoped that the profession would become firmly united to secure their position. Mr. Curbishley seconded.

The Sub-Committee appointed consists of Messrs Hopkin, Lawson, Sumner, Blakemore, Taylor, Capt. Stent, Locke, and Wolstenholme; with power to add. Capt. Stent to act as Convener *pro tem*.

*Abscesses after Injections.* Capt Stent brought up the question of abscess formation at the point of injection, which was generally considered as being due to needle or skin infection. He stated that it was not necessarily so, as from experience and laboratory cultivation the infection was frequently due to vaccines or sera being non-sterile, and suggested that if any number of abscesses were met with, the material used should be tested at a laboratory.

A meeting of the Special Committee of Lancashire V.M.A. was held in Manchester, on March 13th, for consideration of the Master Farrier's Parliamentary Bill. Present—Mr. G. H. Locke in the chair, W. A. Taylor, H. Sumner, H. Blakemore, J. B. Wolstenholme, T. Hopkin and Capt. E. H. Stent, Hon. Sec., *pro tem*.

After due consideration the following resolution was adopted:—"That in view of the interference with the rights of veterinary surgeons to conduct the business of shoeing-smiths now threatened by the proposed Bill of the National Master Farrier's Association, every means be taken to oppose the passing of the Bill so far as it effects such rights."

#### VETERINARY POLITICS.

Sir,—“Dagonet” finds fault with certain of our members for airing their grievances but suggesting no remedies. What remedies does he himself suggest; or what attitude except that of ass-like patience and submission? The gem of wisdom that he points to in “Fra Diavolo’s” letter is a mere recommendation to make ourselves a band of sycophants or nonentities. Years ago Gilbert made a list of people who “never would be missed” and could be done without, but he didn’t include veterinary surgeons. Anybody can make out quite a lot of people that could be dispensed with if we all lived the simple life, e.g., insurance agents, plumbers, tailors, costumiers, soap manufacturers, tram conductors, miners, railwaymen, cotton-spinners; but thank God civilisation has advanced too far ever to make it likely. History has proved that it is bodies of men who have kept their claims to the fore, and been good demanders and propagandists that have advanced. It is the dissatisfied beggars that have got on. It is no good clinging to ruins or to huckstering finance. If insurance companies did do without us, would it be any great loss at 2/6 or 3/6 a time?—Yours faithfully,

G. MAYALL, M.R.C.V.S.



## AN ENQUIRY.

Sir,—I enclose memorandum of two Existing Practitioners, evidently brothers, with what appears to me to be a new qualification, R.P.V.S. Can any member tell me through our valuable Record what is the meaning of these letters? Is it a new qualification granted to them?

M.R.C.V.S.

[This communication is anonymous. Both the names are on Register III, R.C.V.S., and have been for at least 30 years, and at the same place. The fragment of heading enclosed bears no date, and like another document used in a similar manner, may be years old.]

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Duncan, A. C., Major R.A.V.C.	£1	1	0
Edmondson, W., Harrogate	1	1	0
Elmes, G., St. Albans	1	1	0
Freeman, R. B., Dublin	1	1	0
McCunn, J., Lieut. R.A.V.C.	1	1	0
McKerlie, J., Hungerford	1	1	0
Mayall, G., Bolton	1	1	0
Towne, A. H., London, N. 16.	1	1	0
Previously acknowledged	£697	17	0

April 9. £706 5 0

ANGLO FRANCO-BELGIAN VETERINARY RELIEF FUND.  
10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged:—

W. Anderson, Keith	£1	1	0
E. J. Burndred, Major R.A.V.C.	2	2	0
W. Edmondson, Harrogate	1	1	0
G. Elmes, St. Albans	1	1	0
D. C. Greene, Capt. R.A.V.C.	1	1	0
W. T. Oliver, Capt. Tamworth	1	1	0
F. C. Scott, Capt. R.A.V.C.	1	1	0
H. L. Torrance, Capt. R.A.V.C.	1	1	0
A. Weighton, Hull	2	2	0
Previously acknowledged	122	8	6

April 9. £133 19 6

## ARMY VETERINARY SERVICE

Buckingham Palace, Mar. 20.

His Majesty held an Investiture in the Ball Room of the Palace at 11 o'clock.

The following were severally introduced into the presence of The King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

## THE DISTINGUISHED SERVICE ORDER.

Major JOHN STEVENSON.

April 5.

Major LOUIS MCKENZIE, Australian A.V.C.

Mar. 27

Major WILLIAM KENNEDY, East African V.C.

Mar. 22.

O.B.E. (Military Division).

Major REGINALD HORE, Australian A.V.C.

Mar. 29.

## THE MILITARY CROSS.

Captain JOHN DAVIDSON, Australian A.V.C.

War Office, Mar. 15.

The names of the following have been brought to the notice of the Secretary of State for War for valuable services rendered during the war in Military Record Offices in the United Kingdom, and, when applicable, an entry will be made in the records of service of officers and other ranks:—

Major (A/Lt.-Col.) R. C. COCHRANE, F.R.C.V.S.

Mar. 25.

The names of the following have been brought to the notice of the Secretary of State for War for valuable services rendered in connexion with the war, and when applicable an entry will be made in the records of service of officers and other ranks:—

T/Capt. T. BOWHILL.

Mar. 27.

T. Capt R. J. COLLINGS; Major J. A. CONNELL; Capt. W. A. MACGREGOR; T/Capt. J. PURDY; Capt. A. G. SAUNDERS, (T.F.); T. Maj. (A. Col.) R. J. STORDY, D.S.O.; Capt. (T/Maj.) J. TAGG, (T.F.); Capt. G. W. WEIR, (T.F.); Maj. A. WILSON, F.R.C.V.S., Unattd. List (T.F.).

War Office, April 5.

The following are among the decorations and medals awarded for distinguished services. The King has given unrestricted permission in all cases to wear the decorations and medals in question:—

Conferred by the King of the Belgians.

## CROIX DE GUERRE.

Capt. R. C. MATTHEW, Canadian A.V.C., attd. 9th Brig. Can. F.A.

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, Mar. 21.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

The follg. temp. Capts. relinquish their comms. (March 22), and retain the rank of Capt.:—V. Franklin, on acct. of ill-health; C. E. Huston, on acct. of ill-health contracted on active service.

Mar. 28.

Temp. Capt. J. Conner relinquishes comms. on account of ill-health contracted on active service (March 20), and retains rank of Capt.

Mar. 29.

Temp. Qrmr. and Lt. A. H. Webber to be Capt under Art. 330, R.Wt. for Pay and Promotion (Feb. 15).

April 4.

Capt. and Bt. Maj. (temp. Lt.-Col.) E. E. Bennett, ret., reverts to unemployment (Jan. 24), and retains the rank of Lt.-Col.

The follg. relinquish their comms. (April 5):—Temp. Capt. J. P. Dunphy, on acct. of ill-health, and retains the rank of Capt.; Temp. Hon. Lt. C. Young, on acct. of ill-health contracted on active service, and retains the hon. rank of Lt.

April 5.

Maj. (temp. Lt.-Col.) F. S. H. Baldrey, C.M.G., ret. pay, reverts to unemployment (Mar. 5) and retains the rank of Lt.-Col.



April 7.

Can. A.V.C.—Temp. Lt. A. Macintosh is dismissed the Service by sentence of a General Court-martial (Mar. 25).

April 8.

Temp. Capt. W. McQuiston resigns his commn. (Apr. 9), and retains the rank of Capt.

April 10.

Temp. Qrmr. and Lieut. C. G. Kimber, R.A.V.C., to be Capt. under Art. 330 R. Wt. for pay and promotion (April 1).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Mar. 21

Capt. Q. A. Stewart relinquishes his commn. on account of ill-health contracted on active service (March 21), and retains rank of Capt.

Mar. 22.

Capt. C. Baxter be to Maj. (Feb. 28).

April 1.

Capt. G. M. Davey to be Maj. (March 23).

April 3.

Capt. F. E. Jones relinquishes his commn. on account of ill-health (April 4), and retains the rank of Capt.

Amendments to supplement to "*London Gazette*"  
Dated January 1st.

For Maj. and Bt. Lt.-Col. John James Aitkin, D.S.O.,  
read Maj. and Bt. Lt.-Col. John James Aitken D.S.O.

### Failing to Notify Mange.

At Woodbridge Sessions on Thursday, 3rd inst, William Turtill, M.R.C.V.S., Wickham Market, was charged with failing to report the disease of a horse on March 27th.

Miss Cobbold, of Sutton Haugh, stated she called in defendant to look at a horse, and in consequence of receiving a letter requested him to destroy the animal, which was done.

Mr. Horace L. Roberts, F.R.C.V.S., Ipswich, deposed to examining some horses, which he found were suffering from a disease.

In the course of the case it transpired that defendant had been an Inspector under the Animal Diseases Act for over 20 years, and no complaint whatever had previously been made against him.

Defendant said he did not meet Miss Cobbold when he visited Sutton Haugh. The horses were verminous, through being on marshes at Shingle Street. He prepared a lotion, and hoped it would disperse the complaint. During the last few years a great number of duties had devolved upon him, and he had been doing three men's work. At a later date he saw the horses, when they were in a very bad condition. He had previously examined them on two occasions, but failed to detect mange. Subsequently he advised Miss Cobbold to report, or kill the horses. Great difficulty was experienced by veterinary surgeons in separating verminous condition from mange. He was under the impression that after reporting the matter to the owner it was not imperative for him to report the disease, but for the owner to do so.

The Chairman said the Magistrates felt that defendant having been a veterinary inspector for over 20 years, should have known it was his duty to report such a dangerous disease. They ordered him to pay a fine of £3, including costs.—*East Anglian Daily Times*.

### Alleged breach of warranty at Dudley.

At the Dudley County Court on Thursday, before his Honour Judge R. W. Ingham, James Price, haulier, Dudley, claimed £67 14s. 9d. in respect of breach of warranty of a horse which he had purchased from Joseph Turner, farmer, of Kate's Hill. Mr. J. F. Eales appeared for plaintiff, and Mr. W. F. Gandy for the defendant.

Defendant sold a horse to the plaintiff on November 17th. Plaintiff paid £81 for the horse, and alleged that it proved unsound; that when he later sold it at Cave's he only received £35 14s. for it. He claimed £67 14s. 9d., including the keep of the horse for six weeks.

Price, giving evidence, said that defendant verbally warranted the horse as sound and a good worker. He stated that he later found this not to be so, and that the horse fell down while at work. His account was that the horse's neck "came up" and affected his legs, with the result that he fell down in the Himley Road. The horse was afterwards examined by Mr. Chambers, veterinary surgeon, Dudley, who certified it as unsound and unable to move heavy loads.

In cross-examination plaintiff said he did not think the trouble was due to the horse working in fresh harness.

In further cross-examination counsel read an advertisement from the "*Express and Star*"—For sale, dark brown horse, six years, 16 hands, sound wind and eye, good worker in harness.—48, Flood St., Dudley.

Plaintiff admitted that the advertisement was in reference to his horse, but denied that he himself was responsible for the words. He suggested in answer to counsel that the "young lady" who took down the advertisement supplied the words.

Counsel: That advertisement appeared the same day as you received the certificate from Mr. Chambers that the horse was unsound.

Plaintiff: I was told I had better sell him. He was only fit to be killed. I didn't put those words in the paper.

Mr. Thomas Chambers, M.R.C.V.S., said he had known the horse for twelve months. It was brought to his infirmary in July of last year, when it was in the possession of William Lee, of Netherton. The horse had had an injury to the neck and lost the use of its forelegs. On the 19th December, when he examined the horse for the plaintiff, there was an enlargement on the near side of the neck and loss of power in the forelegs. The horse was unsound. He was not surprised to hear that it fell down. Rest and absence of work would help it to grow out of the complaint.

By Mr. Gandy: It was suffering from injury to the spine, which was not incurable.

John Woodall, who claimed a good deal of experience of horses, said that he was present when the horse was purchased, and stated that it was described as sound and a good worker, and had no fault except that it was difficult to shoe.

Albert Price, brother of the plaintiff, also gave evidence on the same subject.

Mr. Abraham Green, M.R.C.V.S., for the defence, said that he had been in practice in Dudley for 50 years, and giving his opinion of the horse's condition when he examined it in January, said that it was suffering from imperfect action in the forelegs and a swelling of the neck, but it was merely a temporary injury probably caused by a collar that was too narrow. The action of the forelegs was quite involuntary, and was caused by the injury to the withers. He had recently had the horse out, when it was perfectly sound, with the exception of the two slight marks on the withers. His conclusion was that Mr. Chambers had made a mistake in his diagnosis.

Cross-examined, he said that if, as Mr. Chambers stated, the bones of the neck were injured, the swelling would not disappear between the times when Mr. Chambers and witness examined it. The horse might certainly improve with two months' rest if the vertebrae were injured, but it would not entirely recover.

Re-examined, Mr. Green stated that the horse had now received treatment, and was perfectly all right.

Mr. Herbert Lloyd Pemberton, M.R.C.V.S., Bridgnorth, said he had examined the horse on Monday, and found it perfectly sound, with the exception of two marks on the withers and a very slight tenderness on the near side. There were no signs of enlarged vertebrae. He had seen the horse draw a cart loaded with a ton of mangolds out of a heavy field and down a steep hill in a perfectly sound manner. If the horse had had the complaint alleged in November, he did not think it would have been able to act in that way.

Cross-examined, witness suggested that if the horse had sore withers in November, the pressure of the collar would cause it to fall. Beyond that he could not suggest any other cause.

The Judge: Do sore withers constitute unsoundness?

Witness: They arouse suspicion.

Re-examined: When a horse changes ownership and gets into new harness, that is when you get the trouble. Badly fitting harness affects the withers.

Turner in the box stated that he acquired the horse in October from Lee at a value of £82. He had no warranty, but had seen the horse at work and knew he was a good worker. While the horse was in his possession he found nothing wrong with it, and was quite

satisfied with it. Referring to the sale of the horse to the plaintiff, he said that he did not offer the horse for sale, but plaintiff and Woodall came and asked if it was to be sold. He denied ever giving any warranty at the time of the sale that the horse was sound and a good worker. The day after Woodall examined the horse thoroughly, the fore legs and the hind legs. The horse was backed and turned, and the only question asked was whether the horse would draw a load of coal. Plaintiff said he was satisfied, he had seen the horse at work, and he paid the money down. Plaintiff did not ask for any receipt or any written warranty. Respecting the part of the claim for the keep of the horse at £2 a week, defendant said he thought that was excessive.

Cross-examined, defendant said the horse was now once more in his possession, and he was quite satisfied with him. He paid a man £1 to buy him at the auction when he was sold for £35 14s.

The Judge: So you have got the horse and £50 as well out of this transaction? Are you going to sell him again?

Lee, the first owner of the horse, from whom defendant had acquired it in October, spoke as to the condition of the horse, and stated that up to the time that he sold him "there was not a better horse in the world for work," and the only reason he parted with him was because he was difficult to shoe.

His Honour said that whether the horse was suffering from an enlargement of the neck or from anything else he had no doubt that it was unsound, and he would give judgment for the plaintiff for £56 14s.—*The Dudley Chronicle*.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
		Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaught-tered.*
		Dogs	Other Anmls											
Gr. BRITAIN.														
Week ended April 5		9		1	1			1	4	136	224	2	45	10
Corresponding week in	1918			10	10			...	...	102	260	5	19	7
	1917			10	11			2	6	44	110	5	59	30
	1916			13	15			1	1	53	107	4	86	235
Total for 14 weeks, 1919		36	2	52	71	19	106	4	20	2254	4537	194	320	105
Corresponding period in	1918			96	110			9	30	1961	3852	206	214	93
	1917			190	222			10	19	1065	2269	327	611	226
	1916			181	216	1	24	20	59	1054	2581	153	1164	3611

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, April 8, 1919

† Counties affected, animals attacked:—Hertford 1, London 3  
Excluding outbreaks in army horses.

IRELAND.		Week ended April 5		...	...	...	...	...	...	Outbreaks	...	...	...
				...	...	...	...	...	...	4	7	...	...
Corresponding Week in	1918	...	...	...	...	...	...	...	...	3	6	...	...
	1917	...	...	...	...	...	...	...	...	1	3	9	62
	1916	...	...	...	...	...	...	...	...	4	12	18	97
Total for 14 weeks, 1919		...	...	...	...	...	...	1	1	48	121	14	47
Corresponding period in	1918	...	1	1	...	...	...	...	...	48	141	6	26
	1917	...	2	2	...	...	1	1	...	16	189	67	429
	1916	...	1	5	...	...	...	...	...	26	184	77	391

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, April 7, 1919  
NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1606.

APRIL 19, 1919.

VOL. XXXI.

## THE COUNCIL MEETING.

The report of Council meeting is exceedingly long, mainly resulting from the great quantity of work covered in the Committee reports, which form the chief features of the proceedings. While not containing much of acute interest, the whole report deserves study, and should convey at least one useful lesson to not a few members.

The financial position is rather better than usual; but only voluntary subscriptions have made it so. A further appeal for these is to be issued with the Annual Report, and a great deal depends upon how members respond to it.

The amount of work reported upon by the Examination Committee is simply tremendous. Members have only to examine the detailed lists of the numerous applications for exemption, remembering that each case constituted a separate problem for the Committee, to find ample evidence of this. We know that all were considered sympathetically; but the number of applications that were refused shows that sympathy was kept within bounds.

The Parliamentary Committee's work has been little less onerous; and several of its items must be reserved for future notice. An interesting one is that, as was inevitable, the question of admitting women to the profession has been revived, and is to be further considered by the Council. A more important matter, which may affect not a few members whose practices have been closed down through the war, is the Military Service (Civil Liabilities) Regulations.

It has been questioned of late whether the importance of the Ministry of Health Bill was realised at Red Lion Square; but the report reveals much activity with regard to it and the analogous measure for Scotland. In fact, the whole report should open the eyes of those who clamour for the Council to "wake up" in matters affecting the profession. The Council is constantly concerning itself with more of such matters than some of its noisiest critics ever heard of. Most of the decisions are really reached in Committee, and endorsed without comment by the Council; and even men who read the reports carefully can form only a crude idea of the quantity or nature of the work done.

There was one regrettable feature of the meeting—it was too small to act on the Registration Committee's report. It is a pity that this fault, unknown in pre-war days, should have marred a meeting which otherwise fittingly wound up one of the busiest and most useful years of Council work we have ever had.

## Royal College of Veterinary Surgeons.

A Quarterly Meeting of Council was held at 10, Red Lion Square, London, W.C., on Friday afternoon, April 11th. Mr. F. W. Garnett, C.B.E., President, occupied the chair, and the following members were present:—Major J. Abson, D.S.O., Mr. G. A. Banham, Major-General L. J. Blenkinsop, D.S.O., Dr. O. C. Bradley, Lieut.-Colonel J. W. Brittlebank, C.M.G., Messrs. J. Clarkson, J. C. Coleman, Prof. S. H. Gaiger, Mr. A. Lawson, Lieut.-Col. A. W. Mason, Dr. McI. McCall, Messrs. J. McKinna, W. J. Mulvey, Dr. Share-Jones, Mr. S. H. Slocock, Sir Stewart Stockman, Mr. H. Sumner, Major-General Thomson, C.B., Messrs. R. C. Trigger, G. Thatcher, (Solicitor), and F. Bullock, (Secretary).

*Minutes.* The minutes of the previous meeting, which had been printed and circulated, were taken as read and confirmed.

*Apologies for Absence.* It was announced that letters regretting inability to attend the meeting had been received from Messrs. P. J. Howard, J. Dunstan, P. Wilson, S. Wharam, J. H. Carter and T. Salusbury Price.

*Obituary.* The SECRETARY read the Obituary List. Mr. MULVEY: The last name on the list—Mr. Joseph Woodger, is that of one of the most respected members of our profession. He was a member of this Council some years ago, and a Vice-President, and he acted as Honorary Auditor for many years. He was a well-known veterinary surgeon, and very highly respected. His death is a loss, because the name of Woodger in London and its immediate district has always been held in high esteem. He was certainly one of the best members of our profession; and an ornament to it, and his death is deplored by all who had the pleasure of knowing him. He had attained a great age, so that he was not much known to the younger generation. I beg to move that a vote of condolence be passed with his family in their bereavement.

Mr. TRIGGER: Although I am one of the senior members of the Council, I am afraid that Mr. Woodger was even before my day. I had not the privilege, as those who live in the more immediate neighbourhood of London had, of a close acquaintanceship with Mr. Woodger, but his reputation was well known throughout the profession. Personally I have known him by name for a very long time and I am quite sure the profession at large will endorse the words that Mr. Mulvey has spoken, and wish to join in the vote of sympathy that has been proposed.

The resolution was passed in silence, all present standing.

*Correspondence.* The SECRETARY read the following resolution forwarded by the North of Ireland Veterinary Medical Association, passed at a meeting of the members held at Belfast on the 28th day of March, 1919:—"That this meeting places on record its appreciation of the action of the Government in introducing the Ministry of Health Bill and its application to Ireland. Further, having regard to the invaluable assistance heretofore

rendered by the members of the veterinary profession to the cause of public health, and to the important part which they must in the future undertake in the matter, would point out the necessity of having the words 'and a member of the Royal Veterinary College' added to clause (d) of sub section (2); and at least one member of the veterinary profession on the Irish Public Health Consultative Council; and this meeting requests the Government to provide in such Bill for such representation. That copies of this resolution be forwarded to the Prime Minister, Dr. Addison, the Chief Secretary for Ireland, the Attorney General for Ireland, and the Ulster Members of Parliament."

The SECRETARY read the following resolution passed by the National Veterinary Medical Association on the 10th April:—"The Council of the National Veterinary Medical Association of Great Britain and Ireland, having carefully considered the situation, strongly support the claims of the veterinary officers of the Department of Agriculture and Technical Instruction of Ireland to be included in the Professional Officers' Class of Civil Servants, as in the case of veterinary officers of the Board of Agriculture and Fisheries."

The PRESIDENT: Nothing arises on those resolutions, because they have been dealt with by the different committees.

#### FINANCE COMMITTEE.

Mr. LAWSON read the following report of a meeting of the Finance Committee held on Friday, April 11th, 1919:—

*Financial Statement.* The Treasurer submitted his quarterly financial statement showing a balance in hand of £125 11s. 6d. and liabilities amounting to £146 14s. 6d. It was resolved that the Treasurer's statement be approved, and that he be ordered to pay the liabilities shown together with cheques for monthly salaries, printing of Register, Fellowship examiners' fees, gas, electric light, workmens compensation insurance.

*Voluntary Subscriptions.* The secretary announced that the amount received in voluntary subscriptions for the first quarter of the year was £697 19s. 0d. It was resolved: That the secretary be instructed to issue a further appeal for subscriptions, to be sent out with the Annual Report, and that an expression of thanks be conveyed to those members who have already subscribed.

It was resolved to recommend that the salary of the secretary be increased by £50 per annum as from April 1st 1919. On the motion of Mr. Lawson, seconded by Major Abson, the report was adopted.

#### EXAMINATION COMMITTEE

The PRESIDENT: The report of the work that has been done by the Examination Committee previous to yesterday's meeting has been printed in order that it may be circulated. You will see what a large amount of work has been done by the Committee—work which has been very onerous indeed. I am very sorry that it has been necessary to call meetings of the Committee during the past quarter, but the work of the Council is increasing in every direction, and we must anticipate in the future more Committee meetings between the ordinary Quarterly Meetings. We cannot do without them if we are going to keep pace with the movement that is going on throughout the country.

Mr. MULVEY: As the President has said, several meetings of the Examination Committee have been held during the past quarter, the proceedings at each of which have been confirmed by subsequent meetings, and I therefore propose to read only the Minutes of the meeting that was held yesterday. The Minutes are as follows:—

*Educational Certificates.* Educational Certificates numbered 1847-1854, and 1869-1870 were submitted and approved.

*Applications for Exemption.* Applications for exemption from the preliminary educational examination were submitted from 22 ex-service candidates, in each case accompanied by educational certificates or by testimonials from headmasters. It was resolved, that in the following cases the application be acceded to:—

1804 W. C. Pratt, age 25, Capt. 4 years service.

1830 W. Taylot, age 27, 4 years' service.

1831 H. West, age 19, 1½ years' service. Further application.

1832 C. Mitchell, 2 years' service.

1843 H. Lewin, 10 years' service, 11 Hussars and A.V.C. Recommended for commission 1st Class Army Cert.

1855 A. J. Beeson, age 23, 4½ yrs' service, Coll. Prec. Cert.

1856 A. Robertson, age 22, 4 years service.

1857 H. R. Randle, Corporal, 3½ years service.

1858 F. S. Clayton, Lieut. M.G.C. 4 years service.

1860 R. R. Guyer, Cadet. Medical Prelim.

1861 E. Ollerhead, Lieut, 2½ years service.

1862 W. W. George, Lieut. age 49, R.A.S.C. (Farrier)

1863 Coull, David, 4 yrs service, A.V.C. Scottish Merit Cert.

1864 David Murray, 3 years service, Scottish Int. Cert. Eng. Maths, French, Science, Drawing.

1865 MacKinley, R. F., age 22, 2 years service

1866 N. C. P. Howard, age 21, 3 years service, recommended for Commission.

1867 Joseph McGuigan, age 21 4 years service, Scottish Merit Cert.

1868 T. W. Henderson, 3½ years service, Scottish Int. Cert. Eng. Maths. French, Science, Drawing.

1869 R. B. H. Murray, Scottish Leaving Cert. 1917, Eng. Maths. Latin, French, Science.

1859 W. Davison, Farr. Sergt. C.A.V.C., 4 years service B.Sc. Agriculture, Toronto, entered Edin. Feb. 1919 Exemption also granted from Class A. Exam. (Except Anatomy).

*Applications from Veterinary Students.* Applications from demobilised veterinary students for permission to sit at the July examinations were received, and it was resolved That in the following cases the applications be granted:—

Class A. D. McWhirter, Sergt. R.A.V.C., 3½ yrs. service, entered Edin. 3rd Feb., 1919.

C. S. Jamieson, 3 yrs. service, entered Edin. 4th Feb., 1919.

Ian A. Galloway, 18 in Oct., 1918; called up for military service, sent to R.A.F. Cadet Distribution Dep., arrived there on Nov. 12, sent back home. Entered Edin. Jan., 1919.

J. R. Haddow, 4 yrs. service, entered Edin., Jan., 1919.

Class B. R. L. Connell, passed A (2nd hons., July, 1915, gold medal). Attended R.V.C. Oct. to Dec., 1915; military service Jan., 1916, to Mar., 1919.

R. M. C. Gunn, B.Sc., exempted from part of A, ent'd Edin. Jan., 1919.

Permission was granted to the following ex-service students to sit at the Class A exam. in Dec. next:—

J. Currie, 3 yrs. service Navy. Ent. Glas., Mar., 1919.

W. C. Welsh, Lt. R.F.A.. 3 yrs. „ Edin., Apr., 1919.

*Colonial Graduates.* Applications were submitted by the Deputy Director-General, Repatriation and Demobilisation Department, Australian Imperial Forces, from the following officers of the A.A.V.C., for permission to sit at the final examination for the Diploma of M.R.C.V.S., after an attendance of two terms at an affiliated Veterinary College.

Lt.-Col. T. Matson, B.V.Sc., Univ. of Melbourne.

Capt. R. A. B. Stanhope, B.V.Sc. „ „

Capt. J. S. Penrose, „ „ „

Capt. G. Fethers, „ „ „

Capt. H. R. Seddon, „ „ „

Major T. H. Hankin, „ „ „

Major C. T. McKenna, „ „ „

Major L. E. McKenzie, D.V.Sc. " Berne, Switz'd.  
 Major R. H. F. MacIndoe, L.V.Sc. " Melbourne.  
 Major F. Murray Jones, " " "  
 Capt. F. V. Collins, " " "  
 Capt. F. C. E. Geyer, B.V.Sc. " Sydney.  
 Major E. S. James, " " "  
 Capt. B. C. Veech, " " "  
 Capt. W. L. Hindmarsh, " " "

In each case the officer was recommended by the Deputy Director of Veterinary Services to the Australian Imperial Forces. It was resolved to recommend that the applications be acceded to.

Applications were submitted by the Director of Veterinary Services of the Canadian Army Veterinary Corps on behalf of officers of the C.A.V.C. for permission for them to sit at the final examination for the Diploma of M.R.C.V.S. after attendance for two terms at an affiliated Veterinary College. It was resolved to recommend that the applications be granted in the cases of the following officers:—

Capt. H. Colebourne, B.V.Sc., Toronto, 1911.  
 Capt. E. L. Brown, B.V.Sc., Toronto, 1917.  
 Lieut. O. V. Gunning, D.V.M., Ohio, 1917.  
 Major C. G. Saunders, D.S.O., B.V.Sc., (Hons.) Toronto, '09.  
 Capt. R. M. Lee, B.V.Sc., Toronto, 1916.

*Government Maintenance and Training Grants to students.* A letter from the Ministry of Labour was received confirming the proposals reported by the President at the previous meetings:—

Ministry of Labour, Civil Demobilisation and Re-settlement Department,

8 Richmond Terrace, Whitehall,

Ref. No. D.R.A. 203/17. London, S.W.1, April 2, 1919

Sir,—I am directed by the Minister of Labour to refer to the proposal which was communicated to the Lords Commissioners of H.M. Treasury by the Secretary of the Board of Agriculture and Fisheries in his letter dated the 16th January, 1919. It is understood that you are in possession of a copy of this letter.

I am to inform you that it has now been agreed between the Board of Agriculture and Fisheries and the Ministry of Labour that the selection of scholars and the payments of grants for training in veterinary surgery under the Ministry of Labour will be carried out in accordance with the general principles of the Officers University and Technical Training Committee scheme for the assisted training of Officers and other ranks of similar educational qualifications.

In this connection I forward copies of letters addressed to the Board of Agriculture and Fisheries and to the Scotch Board of Agriculture, and the Department of Agriculture and Technical Instruction for Ireland.

If you agree to the proposals therein contained, the Minister would be glad to be informed of the names of the members of the Council of the Royal College of Veterinary Surgeons who will be on the Sub-Committee of the Central Grants Committee.

I am to state that Sir Robert Horne has nominated Major the Hon. J. N. Ridley, Secretary of the Grants Committee, for the post of Chairman of the Sub-Committee, and that it is understood that the secretarial work of the Sub-Committee will be carried out by the Secretary of the Royal College of Veterinary Surgeons. I am, Sir, your obedient servant,

J. A. BARLOW.

The President, R.C.V.S., 10 Red Lion Sq.

D.R.A. 203/17. 31st March, 1919.

Sir,—I am directed by the Minister of Labour to refer to the letter addressed to you on Jan. 16th, 1919, by the Secretary of the Board of Agriculture and Fisheries, and to state that it has now been agreed with the Board of Agriculture and Fisheries that the Ministry of Labour will be responsible for administering the training of

veterinary surgeons under the terms of the Officers' University and Technical Training Committee scheme for assisted training of officers and other ranks of similar educational qualifications.

It is proposed that the selection of scholars for training in the veterinary colleges of the United Kingdom shall be carried out by an Advisory Committee, which will operate as a Sub-Committee of the Grants Committee of the Ministry of Labour, and which will consist, as proposed by the Secretary of the Board of Agriculture and Fisheries in his letter to the Treasury dated Jan. 16th, 1919, of the following members:—

One representative of the Board of Agric. and Fisheries.

" " " Dept. of Agric. and Technical Instruction for Ireland.

" " " Board of Agric. for Scotland.

Five members of the Council of the Royal College of Veterinary Surgeons, not connected with the schools. A Chairman to be nominated by the Ministry of Labour.

The Minister would be glad to be informed if your Department concurs in this proposal, and, if so, to receive the name of your representative appointed to serve as a member of the Advisory Committee.—I am, Sir, your obedient servant,

(Sgd.) J.A.B.

The Secretary, Dept. of Agric. and

Technical Instruction for Ireland, Dublin.

A copy of this letter was addressed also to The Secretary, Board of Agriculture for Scotland, 29 St. Andrew Square, Edinburgh.

31st March, 1919.

Sir,—I am directed by the Minister of Labour to refer to your letter dated March 13th, 1919, and to state that the arrangements, semi-officially agreed upon between your department and Major Ridley on the 10th inst., are concurred in.

It is proposed that the selection of scholars for training as veterinary surgeons under the scheme for the assisted training of officers and other ranks of similar educational qualifications shall be carried out by an Advisory Committee composed as was suggested in your letter of 16th January, 1919, addressed to the Treasury, and operating as a Sub-Committee of the Grants Committee of the Minister of Labour.

I am directed to request that Sir Robert Horne may be informed of the name of the representative appointed by Lord Ernle to serve as a member of this Advisory Committee.—I am, Sir, your obedient servant,

(Sgd.) J.A.B.

The Secretary, Board of Agric., and

Fisheries, 4, 5 and 8 Whitehall Place, S.W. 1.

The Secretary reported that he had informed the Ministry of the names of the representatives of the College, as approved by the Committee at its previous meeting.

*Dates of Professional Examinations.* The Secretary reported that he had been asked by Secretaries of the Schools to supply information with regard to the probable dates of the professional examinations during the coming year. It was resolved to recommend that the Council at its meeting in July should fix the following dates for the professional examinations:—

1919 Dec. 12 Written. 1920 July 5 Written.  
 16 Oral. 6 Oral.

*Bye-laws.* It was resolved to recommend That a special Committee be appointed by the Council to consider the Bye-laws of the College, and to recommend necessary revisions.

*Instructions to Examiners.* The Secretary submitted a draft of instructions to Examiners, and it was resolved That the draft be printed and circulated to the Committee before its next meeting.

The following Minutes of meetings of the Examination Committee held since the previous quarterly meeting were taken as read :—

*Examination Committee.* The following are reports of the meetings of the Examination Committee, held on Friday, February 28th, and Friday, 21st March 1919.

*Present*—Mr. W. J. Mulvey in the Chair; Mr. F. W. Garnett, Sir John M'Fadyean, and Mr. S. H. Slocock.

February 28th, 1919

*Minutes.* The Minutes of the previous meeting, having been printed and published, were taken as read and confirmed.

*Educational Certificates.* Educational Certificates numbered 1780, 1792, 1795, 1810, 1825, 1826, 1827 were submitted and approved.

*Applications for Exemption.* Applications for exemption from the preliminary educational examination were received from 31 ex-service officers and men, in each case accompanied by educational certificates or testimonials from headmasters and others. In the following cases the applications were acceded to :—

- 1793 Buchanan, J. H. Higher Ed. Scotland Inter. Cert.
- 1794 Amar Nath, Graduate of Lahore Vet. College. Dallwall Middle School Certificate.
- 1796 Blacklee, E., (M.C.) Lieut. Oxford Junior and Senior Certs.
- 1797 Walker, F., 4 years service. Trained Certificated Teacher.
- 1799 Bowie, R. S. Lieut. 4 yrs service Head Master's Cert.
- 1801 Bryan, R., Lieut. 3½ yrs. service " "
- 1802 Ford, L. J., Lieut. 3½ yrs. service " "
- 1803 Clegg, A. C. 4½ yrs. service. wounded " "
- 1805 Nichols, J. H., Private 1 yrs. service. (Cambridge Junior and Ed. Inst. Scotland Prelim.
- 1806 Bristow, R. Lieut. 4½ yrs service Head Masters Cert.
- 1808 Carter, J. G. Lieut. 3 years service " "
- 1809 Jones, W., Private, 15 mths service " "
- 1811 Catmur, M. G. 2 yrs. service wounded " "
- 1814 McGowan, A. G., Lieut. 3½ yrs service. Cambridge Junior Cert. and Chartered Accountants' Prelim.
- 1815 Robinson, T. H., Lieut. Irish Intermediate Middle Grade Cert.
- 1816 Braes, J. R. M. 4½ yrs. service Head Master's Cert.
- 1817 Lauder, D. J., 2 yrs. service. Scottish Inter. Cert.
- 1824 Bryden, W. P., Lieut. 2 yrs. service. " "
- 1828 Barker, E. D., 4 years service. Head Master's Cert.

The following cases were considered, and it was resolved That the applications be acceded to provided that satisfactory certificates as to general education be received.

- 1804 Pratt, W. C., Capt., 4½ years service. Wounded.
- 1821 Crumplin, C. H., Lieut., 3 years service.
- 1812 Renfrew, A. R., Flight Cadet, 2½ years service. Cambridge Junior and Senior Certs. English, Maths., Latin, Heat, Practical Physica.

It was resolved That A. R. Renfrew's preliminary certificates be accepted, and that he be admitted to the Class A examination in December, 1919, provided satisfactory certificates as to attendance are received.

*Special Application.* 1822 Mitchell, H. D., Lieut. B. Sc. Degree in Agriculture, McGill University, 1915.

It was resolved That this applicant be granted exemption from the preliminary educational examination, and also exemption under the provision of Bye-law 62a from the first professional examination.

*Applications from Veterinary Students.* The following applications were received from veterinary students :—

A. A. Hamilton. Class B. Attended Dublin, Oct., 1917 to March, 1918, and Oct., 1918 to Nov. 14, 1918. Applies for permission to count attendances at Glasgow from Jan., 1919 to July, 1919, and to sit at Class B exam. in July, 1919. Resolved That the application be not acceded to.

M. W. Sheppard. Class B, passed A 2nd. Hon., July, 1916. Attended Class B, Oct. to Dec., 1916. Military service since. Leave granted to sit at B exam. in July, 1919.

J. E. Barnes, Capt., Class D, 3½ years' service. Discharged unfit, Feb., 1918. Passed Class C, 2nd. Hons. Dec., 1918. Leave granted to sit at D exam in July, 1919.

J. R. Pratt. Class D. Passed C July, 1918. Served R.A.V.C., August, 1918 to Jan., 1919. Leave granted to sit at D exam. in July, 1919.

M. Bridgeman. Class B. Passed Class A, July, 1916. Attended two terms Class B. Military service, March, 1917 to Dec., 1918. Is taking B exam. July, 1919. Applies to take C exam. in Dec., 1919.

It was resolved That the application be not acceded to. W. Coulter. Failed Anatomy Class A, Dec., 1914 4½ years' service. Leave granted to sit at B exam. in Dec., 1919, and to be examined in the whole subject of Anatomy.

J. Ferguson. Class B. Attended Glasgow, Oct. to Dec., 1915. 3 years' military service. Rejoined Feb. 5th, 1919. Leave granted to sit at B exam. in July, 1919.

R. Scoular. Class B. 3 years' service. Demobilised, Feb., 1919.

Resolved to recommend : That in view of the applicant's military service, he be allowed to present himself for the Class B exam. in July, 1919, on producing evidence that he has attended for two terms at a veterinary college.

R. R. Moodie. Class B. 3 years' service. Demobilised Feb., 1919. Leave granted to sit at Class C exam., July, 1919.

R. R. Watts. 4½ years' service. Failed Anatomy, July, 1914. Class B. Leave granted to pass to C Course and to sit for Senior Anatomy in July, 1919, and, if successful, at the Class C exam., Dec., 1919.

J. N. P. Holt. 4 years' service. Rejected Class B, Dec., 1913 and July, 1914. Applies to pass to Class B, and to sit for Anatomy and Physiology, July, 1919.

Resolved : That the application be not acceded to. J. H. P. Games. Class A. 4 years' service. Failed Class A, July, 1909. Applies to pass to Class B.

Resolved : That the application be not acceded to.

J. Mair. Class B. 3 years' service. Demobilised Jan. 31, 1919. Leave granted to sit at B exam., July, 1919.

F. E. Somer. Class B. 2 years' service. Demobilised Jan. 15, 1919. Leave granted to sit for Class B exam., July, 1919.

In all the above cases, the concessions granted are conditional upon the receipt of satisfactory certificates from the colleges attended.

*Stellenbosch University.* An application was received from the University of Stellenbosch for the admission of students who have passed the first year's examination of the University in Chemistry, Physics, Botany and Zoology to the second year's course for the diploma of M.R.C.V.S.

It was resolved : That the consideration be deferred pending the receipt of further information from the University

*Colonial Veterinary Surgeons.* (a) An application was received from Mr. W. E. Armstrong, B.V. Sc., (Toronto, 1915), Capt. R.A.V.C., for permission to attend at the final year's course and to sit for the final examination for the diploma of M.R.C.V.S. It was resolved to recommend That under the provision of Bye-law 61a, the application be acceded to.

(b) An application was received from Colonel E. A. Kendal, C.M.G., of the Australian Imperial Forces asking what concession if any, could be granted to Australian Veterinary Surgeons at present holding commissions in the A.A.V.C., who desire to obtain the diploma of M.R.C.V.S. The Secretary was instructed to reply that the Committee would be prepared to



recommend, in the case of holders of the degree of Bachelor of Veterinary Science, that permission be given such candidates as are recommended by the Australian Army Authorities to sit for the final examination for the diploma of membership, after a satisfactory attendance for two terms at one of the affiliated veterinary colleges. The Committee were not, however, prepared to deal with the case of veterinary officers not holders of the degree of B.V.Sc., without further consideration after the receipt of a more detailed application.

*Woman Applicant.* A further application was received from Miss E. G. Knight for consideration of her request, but the Secretary was instructed to reply that no decision was possible at present other than that already communicated to her.

March 21st, 1919.

*Present*—Mr. W. J. Mulvey in the Chair; Dr. O. Charnock Bradley, Mr. F. W. Garnett, Sir John M'Fadyean, Mr. J. McKinna, Prof. E. S. Shave, Mr. S. H. Slocock, and Sir Stewart Stockman.

*Minutes.* The minutes of the previous meeting were read and confirmed.

*Educational Certificates.* Educational Certificates numbered 1844, 1845, 1846, were submitted and approved.

*Applications for Exemption.* Applications for exemption from the Preliminary Educational Examination were received from 22 ex-service officers and men, in each case accompanied by certificates or testimonials from headmasters. It was resolved That exemption be granted in the following cases:—

- 1807 Robertson, T., Age 21, Two years' service.
- 1819 Miller, J. C., Capt. R.A.V.C., Age 34, Graduate San Francisco Veterinary College.
- 1821 Crumplin, C. H. Lieut. Age 25. Four years' service College of Preceptor's Certificate, 3rd Class
- 1823 Byrne, P., Corporal. Age 20. 2½ years' service
- 1829 McGeachy, A. Age 22. Four years' service.
- 1835 Burgon, E. A., Staff Sergeant R.A.V.C. Age 22.
- 1836 Longmuir, W., Sergt-Major. Age 28. 4½ years' service.
- 1837 Wooldridge, W. R. Age 18. One years' service London School Cert. (Eng., Maths., Hist. and Geog., French, Drawing, Heat, Light and Sound, Mechanics, Chemistry); London Matric. (Eng., Maths., French, Hist. and Geog., Heat, Light and Sound, Drawing); Inter B.Sc., (Pure Maths., Applied Maths., Physics, Chemistry).
- 1838 Granshaw, W. A. Age 20. Two years' service. London Senior School Cert. (Eng. Mathematics, French, Heat, Light and Sound, Chemistry and Mechanics).
- 1839 Brennan, A. D. T., Lieut. Age 24. 4½ years' service. Irish Int. Middle Grade (Eng., Maths., Hist. and Geog., Latin, French, German, Physics. Senior Grade (Eng., Maths., Latin, French, German, Chemistry).
- 1840 Griffiths, H. W., Sergt. 2 yrs. service Testimonials
- 1841 Smithies, R. B., Sergt. R.A.M.C. 4½ years service. College of Preceptors' Junior Certificate.
- 1842 Wilkins, H. C., Lieut. 4½ years service. Wounded. Central Welsh Board Senior Cert., 1st B.D.S. (Chemistry, Physics, Zoology); 2nd B.D.S. (Dental Mat., Med., and Metallurgy). Exemption was granted from part of the first year's examination, conditional upon the candidate taking the whole subject of Anatomy at the Class B Exam.)

*Applications from Veterinary Students.* (a) An application was received, signed by 78 veterinary students recently demobilised from the Army, for a modification of the rules concerning the professional examinations.

It was resolved That the applicants be informed that the Committee cannot recommend the Council to grant their request, but that applications from individual

students will be sympathetically considered by the Committee after the examinations in July, each case being dealt with on its merits.

(b) Applications were received from 16 veterinary students recently demobilised for permission to sit at the Professional examinations to be held in July.

It was resolved That on the production of satisfactory certificates of attendance, the following students be admitted to the July examinations.

Class A. J. W. Thwaite, E. Wilkinson, A. Fulton, J. H. Bateman, W. R. Wallace.

Class B. A. W. Baird, T. W. M. Cameron, W. Coulter, C. H. Dicksbury, R. Dunwoody, A. M. Graham, F. J. Hood, A. J. McCarmick, T. J. Richardson.

*Government Maintenance and Training Grants.*

(a) The following letter was received from the Board of Agriculture:—

Board of Agriculture and Fisheries,  
I.2582/1919. Whitehall Place, London, S.W. 1.

13th March, 1919.

Sir,—In reply to your letter of the 17th ult., I am directed by the President of the Board of Agriculture and Fisheries to refer to the Conference which took place at this office on the 10th inst., and to say that in accordance with the decision then taken, the Board are withdrawing their application to the Treasury for funds for the training of veterinary students who have served in His Majesty's forces during the War. The Board of Agriculture for Scotland, and the Department for Agriculture and Technical Instruction for Ireland, are being informed to that effect.

It is understood that the necessary provision will be made by the Ministry of Labour in the case of the Veterinary, as in other professions.—I am, Sir,

Your obedient servant,  
(Sgnd.) A. D. HALL, Secretary.

(b) The President reported that he had had an interview with Major Ridley of the Appointments Department of the Ministry of Labour, with regard to the method of awarding grants to ex-service officers and men desirous of completing the course for the Diploma of M.R.C.V.S., and to other candidates of the same class desirous of entering upon the course. The Veterinary Profession had now been included amongst the professions for which training grants can be made by the Ministry of Labour in all approved cases, and it was proposed that a special Sub-Committee consisting of representatives of the veterinary profession not connected with the Schools, and representatives nominated by the Boards of Agriculture for England and Scotland, and the Department of Agriculture for Ireland, with a Chairman to be appointed by the Ministry of Labour, should be formed for the purpose of investigating all applications. The President had submitted the following names to the Ministry of Labour as representatives of the profession on the proposed Committee:—G. A. Banham, J. Clarkson, F. W. Garnett, S. H. Slocock, P. Wilson. It was resolved That the action of the President be approved.

*Correspondence.* A letter was received from the Secretary of Agriculture for the Union of South Africa asking for an expression of opinion from the Council as to the degrees or diplomas in veterinary science granted outside the United Kingdom which may be regarded as equivalent to the M.R.C.V.S. in their standard of attainments in veterinary science. It was resolved That the Secretary be instructed to reply that the Council have not before them the information which would enable them to answer the question put.

Mr. TRIGGER: I think the profession will be very anxious to be assured, in regard to the various applications that have been made by service men, that it is a war emergency measure only.

Mr. MULVEY: You may be quite assured of that.

The Committee have been very careful indeed and only men who have done good service have been considered.

Mr. TRIGGER: I am perfectly well aware of it myself, but I think the fact ought to go out to the profession, in order that there may be no doubt about it.

The PRESIDENT: They also come under the special Bye-law which was passed by this Council as a war emergency measure.

Major-Gen. BLENKINSOP: Certain applications have been granted in the case of Canadian and Australian officers of the Army Veterinary Corps, but I should like to point out to the Council that in addition to the officers who have been put forward there were at the termination of hostilities no fewer than 126 Canadian graduates serving in the Royal Army Veterinary Corps, several of whom were quite as highly qualified and have done quite as good work as the officers to whom you have given exemption.

The CHAIRMAN: I should like to point out to Gen. Blenkinsop that if any applications are made they will be considered in the same way as the other applications, but up to the present no other applications than those which have been read out have been received by the Committee. They will all be considered if application is made.

Major-Gen. BLENKINSOP: The point I want to make is that nobody knew anything about the applications or that anything was being done in regard to the matter. Some of these officers may be on their way to Canada by now. When the Committee was considering the subject, if they had only given us the information we could have told the Canadian graduates before they proceeded overseas. Many of the graduates that I am speaking about came over here in the early part of the war to assist us during a very difficult time; many of them have now returned to Canada and of course have lost any opportunity they might have had under this arrangement.

The PRESIDENT: I can assure Gen. Blenkinsop that what he is complaining about having been omitted has been done through the respective Army Veterinary Corps, both the Australian and the Canadian.

Major-Gen. BLENKINSOP: I am speaking of the Royal Army Veterinary Corps. At first we had the Canadian Army Veterinary Corps officers and 77 Australian officers, all of whom were serving under the Director General of Veterinary Services in different theatres of the war. Some of them were not serving under the Deputy Director of Veterinary Services at all, and never have done so. The officers I am speaking about number 126 or more—I believe many more. When the armistice was signed there were about 126 Canadian graduates in the Royal Army Veterinary Corps.

Mr. MULVEY: I should like to say, by way of explanation, that no information was sent to anyone connected with any of the Colonial Forces in regard to this matter; the application came from them. The application in the first instance came from Col. Kendall by way of a request. He was then told that individual application must be made in each case. But no information was ever sent, and no request was ever made to anyone. The result of that is that all the applications that have been made are personal applications, and it was open to anyone connected with the Colonial Forces or any veterinary students to make application in the same way.

Col. BRITTLEBANK: With regard to the matter raised by Mr. Trigger, I am not quite clear, although I am a member of the Examination Committee, whether the question of granting these applications of Colonial graduates is to be considered as a war measure or as an honour. What is it? Are we conferring honours from this College on these people?

The PRESIDENT: No. They are going to pass the examination.

Mr. SUMNER: After six months' study.

Mr. MULVEY: We are not conferring anything at all upon them. I thought that was made quite clear yesterday at the meeting of the Committee.

Col. BRITTLEBANK: I was quite clear with regard to the facilities given to the men who were excused from the Preliminary examinations as far as students were concerned, but I did not understand that the doors of this College were to be opened to these graduates of Melbourne University or the various Colleges that these people come from. I am not saying it is unwise nor that it is wrong, but it is creating a precedent which it seems to me is going to be extremely difficult to govern in the future. Have you powers to restrict it purely and simply to men who have served in the Royal Army Medical Corps, so that it will not go beyond that?

Mr. MULVEY: That is so. You may rest assured that that was the understanding, and that that was the instruction of the Council to the Committee—that it was to be to men who had served in the Army during the present war, and those men only.

The PRESIDENT: Practically the whole of the work of the Examination Committee is consequential on the special Bye-law that the Council passed in regard to war services.

Col. BRITTLEBANK: I hope the Council will forgive me for pleading ignorance. I know that ignorance is no excuse for breaking the law, but I am ignorant of the proceedings in regard to this matter, and it was merely from the point of view of the danger of creating a precedent that I rose to ask the question. I think, in fairness to the other graduates that General Blenkinsop has mentioned, whether they have returned to Canada or not, it should definitely go forth from this Council that any recommendations coming from the Director-General will receive very careful consideration by this Council, whether these people have gone home or whether they are still serving.

The PRESIDENT: They have only to make application to this Council.

Col. BRITTLEBANK: But that is not understood. It is quite evident that the Director-General did not understand it.

The PRESIDENT: As I say, they have only to make application to this Council. I take it that those men who wanted the degree have made application at the present time.

Col. BRITTLEBANK: But none of these men seem to have the faintest idea of these particular facilities which they may claim.

Sir STEWART STOCKMAN: Is it not open to Gen. Blenkinsop to tell these men that they may apply?

The PRESIDENT: They must submit their names and qualifications individually for the consideration of the Examination Committee.

Sir STEWART STOCKMAN: But is it not open to Gen. Blenkinsop or anybody else to tell these gentlemen about it?

The PRESIDENT: Yes. Gen. Blenkinsop can do what he likes in the matter? we have no power over him.

Mr. McKINNA: And I hope that Col. Brittlebank will do the same too.

Dr. SHARE-JONES: Is it not the fact that bringing the matter before the Council is the only means at our disposal of conveying this fact to the whole profession?

The PRESIDENT: That is so.

Dr. SHARE-JONES: It will be quite well known after this afternoon.

On the motion of Mr. Mulvey, seconded by Dr. Bradley, the reports of the meetings of the Examination Committee on February 28th, March 21st and April 10th, were adopted.

On the motion of Mr. Mulvey, the following gentlemen were appointed a Special Committee to consider

the Bye-laws of the College, and to recommend the necessary revisions:—The President, Messrs. McKinna, Share-Jones, Gaiger, Bradley, Mulvey, Sir John M'Fadyean and Mr. Howard.

#### PARLIAMENTARY AND GENERAL PURPOSES COMMITTEE.

Dr. BRADLEY read the following report of a meeting of the Parliamentary and General Purposes Committee held on April 10th.

*Clean Milk Supply.* The Secretary reported that the Sub-Committee on the Clean Milk Supply, in the absence of a quorum, were unable to submit a report.

*Ministry of Health Bill. Scottish Board of Health Bill.* These Bills were submitted and considered. The Solicitor reported that the Ministry of Health Bill had passed its third reading on April 9th, and that the Scottish Board of Health Bill had passed the Standing Committee. He had attended all the sittings of the Standing Committee, and with the President, had had interviews with the Secretary for Scotland and the Attorney General for Ireland. He submitted a report on the steps taken, in consultation with the President, to secure adequate representation of the veterinary profession.

It was resolved That strong representations be made to the Minister, after passing the Ministry of Health Bill, that a representative of the veterinary profession should be appointed on the Board for Ireland, and on the Consultative Council for England. That similar efforts be made for the appointment of a representative of the profession on the Consultative Council under the Scottish Board of Health Bill. That a circular letter be sent to all the Veterinary Medical Associations urging upon them the advisability of taking such local action as was immediately possible to them in order to secure proper representation of the profession.

*Dogs Protection Bill: Vivisection of Animals Bill.* These two bills were submitted and considered. The Solicitor reported that the Dogs (Protection) Bill had already passed through Committee. It was resolved That it be left to the President and Solicitor to take such steps as they consider desirable in support of the opposition to these bills.

*Animals (Anaesthetics) Bill.* This Bill was submitted and considered. It was resolved That no action be taken.

*Mettam Petition.* Information was received to the effect that there was no further necessity to proceed with the collection of signatures to this Petition.

*Civil Liabilities.* The Secretary submitted copies of the Regulations made by the Military Service (Civil Liabilities) Committee, showing the circumstances in which assistance may be given to demobilised officers, and the procedure for making an application.

*Women's Emancipation Bill.* The Secretary called attention to Clause 1 of the Women's Emancipation Bill now before Parliament which provides for the removal of the sex disqualification and it was resolved That the matter be referred to the Annual Fee Committee.

The following report of a meeting of the Parliamentary and General Purposes Committee held on March 21st, 1919, was taken as read:—

*Parliamentary Bills.* The Solicitor reported that Messrs. Sherwood and Co. having perused the Private Bills deposited for the present session, do not find that any affect the interests of the College and the Profession.

*Ministry of Health Bill.* The Ministry of Health Bill was submitted together with copies of resolutions passed by the Midland Counties V.M.A., the Royal Counties V.M.A., and the Veterinary Medical Association of Ireland with regard to the Bill. The Solicitor reported that he had been in attendance at the Stand-

ing Committee of the House of Commons during the consideration of the Bill, and that on the instructions of the President, he had endeavoured to make arrangements for an amendment to Clause 9, providing for the inclusion of a veterinary surgeon in the Scottish Board of Health, as constituted by Sub-section iii. of Clause 9.

It was resolved to recommend (a) That having given the most earnest consideration to the provisions of the Bill, the Committee do not consider, in view of the fact that the Bill does not enact any new legislation on matters of interest to the profession, but merely brings together under one department the functions of several departments under existing Acts of Parliaments, that there is any opportunity in the present Bill for intervention on the lines suggested in the Resolutions submitted.

(b) That the Solicitor be instructed to continue to watch the progress of the Bill.

(c) That the President be authorised to continue his endeavour to obtain the inclusion of a Member of the Royal College of Veterinary Surgeons in Clause 9, Sub-Section iii., in the event of the Bill being applied to Scotland.

*Furriers' Registration Bill.* A copy of the draft Furriers' Registration Bill was submitted, together with resolutions on the matter passed by the London Furriers' Association, and by the Lancashire Veterinary Medical Association. After due consideration it was resolved That no action be taken for the present.

*Demobilisation of Veterinary Surgeons.* The President reported that he had ascertained by means of a question put in the House of Commons on Thursday, March 13th, that up to that date 132 veterinary officers had been released from the Royal Army Veterinary Corps since the Armistice.

It was resolved That the Secretary be instructed to write to the Secretary of the War Office pointing out that out of more than 1100 veterinary surgeons on Active Service, only 132 had been demobilised by March 13th, and requesting that in view of the great dearth of veterinary surgeons in civil practice throughout the country, every possible effort be made to demobilise a large proportion of civil veterinary practitioners as early as possible.

The Secretary reported the receipt of the Animals (Notification of Disease) Order of 1919 from the Board of Agriculture.

Sir STEWART STOCKMAN: May I ask when the Sub-Committee on the Clean Milk Supply was to have met?

The PRESIDENT: It was to have met at 11 o'clock yesterday morning, but in the absence of a quorum it was unable to do so.

Sir STEWART STOCKMAN: That is exceedingly unfortunate, because the matter is being pushed on, and any report that the Sub-Committee desire to make should have been presented today. The thing is in process of being formed; they are pushing on with it as hard as they can, and it would have been of great benefit if we could have had the views of that Sub-Committee on the subject. I do not know if anything can be done.

Mr. MULVEY: Not a single member turned up.

The PRESIDENT: I do not think we can do anything now.

Sir STEWART STOCKMAN: It will be too late in the week if you want to do anything.

The PRESIDENT: If that is so we can call a meeting of the Sub-Committee this afternoon after this meeting. The Committee consisted of Sir John M'Fadyean, Mr. Price, Mr. Slocock, Col. Brittlebank and myself.

Col. BRITTLEBANK: What object would there be in the Committee meeting to-day? The Council cannot receive its report. I suggest that if anything is to be done it ought to be done now. The Sub-Committee, if it met, could not do anything.

Mr. TRIGGER: Unless you gave it executive powers.  
Major ABSON: Cannot we go into Committee and deal with the matter now?

The PRESIDENT: Yes, there is no reason why the Council should not resolve itself into Committee and deal with the question, so that immediate action can be taken.

Mr. McKINNA: I propose that the Council resolve itself into Committee to deal with the matter now. Dr. McCall seconded the motion, which was carried unanimously.

Mr. THATCHER: Before the Council goes into Committee, I should like to say, with regard to the Scottish Board of Health Bill, that the statement made in the report that the Bill had passed the Standing Committee was quite correct at the date of the meeting, but since then, namely, last night, the Bill had passed its third reading.

The PRESIDENT: Before we go into Committee I think it would be better to pass the reports of the Parliamentary Committee.

Dr. BRADLEY: I move that the minutes of the meetings of the Parliamentary Committee of March 21st and April 10th, be adopted. Mr. McKinna: I second that.

The CHAIRMAN: There is one matter in the report of the Parliamentary Committee to which I think it would be as well to draw the attention of the members of the profession, namely, the new regulations under the Military Service Civil Liabilities Committee. Apparently members of the profession who have had to close down their practices will be dealt with under this Order. They may be able to get, and most probably will get, certain sums of money at the discretion of the Commissioners, who will go into the question of the liabilities and of the sacrifices that veterinary surgeons have made owing to the closing down of their practices.

The motion for the adoption of the reports was then put and carried unanimously.

The Council then resolved itself into Committee for the purpose of discussing the question of clean milk supply.

On the Council resuming its sitting in public, it was announced that the following resolution had been passed by the Committee: "That the attention of the Local Government Board, the Ministry of Food, and any other Government Department concerned, be drawn to the fact that much technical and administrative work is now being done by unqualified persons in connection with the work of the Food Control Committees, which, in the interests of efficiency and public health, should be done by qualified veterinary surgeons." It was also decided to recommend that the following additional names be added to the Sub-Committee:—Messrs. Share-Jones, McKinna, Coleman, Abson and Banham.

Col. BRITTLEBANK: I feel it my duty, as perhaps the original mover in this matter, to speak in regard to the formation of this Committee. The position, as I have already said in Committee, in which the profession finds itself under this scheme for the production of milk of higher grades is a most unfortunate one, and I hope it will go out from this Council as a very strong expression of opinion that they view with a considerable amount of disfavour the ready manner in which veterinary surgeons have allowed themselves to act, or lent themselves, in a menial capacity, in carrying out the scheme which has been promulgated by the Food Production Department. The veterinary surgeon plays but a very small part in it. The scheme as originally drawn up has, I am bound to say, many points to recommend it. It is an attempt at any rate to do something in a direction in which genuine work is very badly required; but until the profession gets its full share of recognition in the matter—its full share of recognition consisting in nothing short of complete control of the whole question,

as it is a matter concerned with the housing and well-being of cattle, the modes and methods of milking, and everything applicable to the general conduct of the very large business of dairying—we ought not to be satisfied. We come into intimate connection with the Public Health Service, and until we obtain the position which we claim is our right, I consider that our brethren in practice should refuse strenuously to have anything to do with the matter. I do hope that this Council will express itself very strongly on the subject, as a lead to the profession in general. We have a definite claim to these positions, and only by asserting it shall we get them.

On the motion of Dr. Share-Jones, seconded by Mr. Coleman, the report of the Committee was received and adopted.

Mr. COLEMAN: Has that Committee executive powers?

The PRESIDENT: Yes.

#### REGISTRATION COMMITTEE.

The PRESIDENT: I am sorry to say that we have not a quorum present for the purpose of dealing with the report of the Registration Committee.

The SECRETARY read the report of a meeting of the Registration Committee held on April 10th., from which it appeared that 20 cases were considered by the Committee.

Mr. Joseph Randolph Welsby a Member of College was summoned to appear to show cause why his name should not be struck off the Register, he having been convicted of bigamy. The Secretary stated Mr. Welsby had written to him asking for the matter to be adjourned, and he had answered that Mr. Welsby must attend and he produced a telegram he had just received that Mr. Welsby could not be present. The Committee decided to proceed with the case. The Solicitor read a certified copy from the clerk of the Central Criminal Court that on Tuesday 23rd April 1918, Mr. Joseph Randolph Welsby was convicted on an indictment that he married Elizabeth Adelaide Canner during the life of his wife Mildred Mary, and was ordered to be imprisoned and kept to hard labour for 12 months.

The Committee report that they find the conviction proved.

In the remaining cases the Solicitor or the Secretary was instructed in regard to the action that should be taken.

On the motion of Col. Brittlebank, seconded by Dr. Share-Jones, the report was received and adopted, and on the motion of Dr. Share-Jones, seconded by Col. Brittlebank, authority was given for the Seal of the College to be attached to the prosecutions recommended in the report.

#### HONOURS AND PRIZES COMMITTEE.

On the motion of Mr. BANHAM, the following report of a meeting of the Honours and Prizes Committee, held on the 10th April, was received and adopted:—

*Honorary Associateship.* It was resolved to recommend That the Secretary be authorised to take steps to prepare a list of distinguished veterinary surgeons who have rendered conspicuous services to the Allies during the war, and to present the same to the Committee at its next meeting with a view to recommendations for election to the Honorary Associateship of the College.

#### ANNUAL FEE COMMITTEE.

On the motion of the PRESIDENT, seconded by Major ABSON, the following report of a meeting of the Annual Fee Committee held on the 11th April, was received and adopted:—

*Amendment Bill.* Mr. Garnett submitted copies of correspondence relating to the introduction of the Amendment Bill into Parliament and It was resolved

That the matter be left in the hands of Sir John M'Fadyean with power to arrange for the introduction of the Bill at the earliest possible moment.

*Women's Emancipation Bill* The resolution passed by the Parliamentary Committee at its meeting on April 10th was considered and the provisions of the Women's Emancipation Bill were read. It was resolved That no alteration be made in the provisions of the Veterinary Surgeons Act (Amendment) Bill, but that the Council be asked to consider at its meeting in July the desirability of seeking power to admit women to the examinations qualifying for the Diplomas.

#### THE CENTRAL VETERINARY SOCIETY. [NATIONAL V.M.A.—SOUTHERN BRANCH.]

The Forty-fifth Annual Dinner was held on Tuesday, 11th March, at the Holborn Restaurant, London. Fifty-five sat down; Professor G. H. Wooldridge, President, presiding.

The Toast of the King was duly honoured.

##### "THE IMPERIAL FORCES"

Mr. J. WILLETT: Mr. President, ladies and gentlemen, the toast I have the honour to propose is that of "The Imperial Forces"—I should rather say "The Navy, Army, and the Imperial Forces." This toast needs no eulogy of mine for it to be drunk with enthusiasm. The glorious deeds of the Navy and of the Army are so recent in our minds that any words I could say would be invidious. But there is one branch of the Imperial Forces with which we are intimately connected, and about which I should like to say a few words—the Royal Army Veterinary Corps. (Hear hear.) The splendid organization and administration of that body both at home and abroad, and the work they have done, have raised the status of the profession to which we have the honour to belong. It remains for we who have stayed at home to see that that position is maintained in the eyes of the general public. The advance abroad of both preventive and curative medicine has been the admiration of all the other armies. One wonders when one considers the slight mortality of animals in this war. A mortality of a little over 1% in the many thousands of animals carried from over-seas, through U-boat and other risks, and the small total of about 12% through all risks of war, speaks volumes for the good work which has been done by the veterinary profession at the front. (Hear hear.) I am not going to give you a long speech, because I believe that short speeches are the rule at these gatherings; but when you drink this toast I should like you at the same time to drink to the absent members of the Central Veterinary Society who are serving over-seas. Many of them have gained mention; many of them have gained honours. Let us drink their health, and wish them a speedy return to our gatherings. There are several members of the Headquarter Staff here tonight, amongst others Colonel Rainey, who has done a lot of spade work in this war (Applause); and then there is Colonel Aitken. (Applause.) If the Americans were here tonight I think we should be very proud to hear what they have to say of him and his work with the American Veterinary Corps. Then there is Colonel Stordy (Applause), whose name I am going to couple with this toast. I am coupling his name with this toast, because he is Chief Veterinary Officer to the East African Protectorate, and we see and hear so little of our colonial members when they have once gone abroad that I think his being here gives us a fine opportunity to hear the ideas of those over-seas. (Hear hear.) Ladies and gentlemen, I ask you to drink the health of the Navy, the Army, and the Imperial Forces, not forgetting our absent members. (The toast was duly honoured.)

Capt. STORDY: Mr. President, Mr. Willett, Ladies and Gentlemen,

I would in the first place thank you Mr. President and Members of the Central Veterinary Medical Association for the very high honour you have conferred, in entrusting to me the important duty of responding to the toast of the Navy and Army, which Mr. Willett has proposed in such felicitous terms. In the absence of a member of the Senior Service, I would return thanks for the very generous manner in which you have received the toast of the Royal Navy. In the face of an unscrupulous enemy, our gallant sailors have done deeds of heroism, shewn a devotion to duty and performed acts of humanity which command the admiration of the world, and make the British Navy symbolic of all that is powerful, all that is noble, all that is true.

We await, with a hope tinged with anxiety, the decisions of the eminent Statesmen now in solemn conference assembled, and earnestly pray that the high ideals, for which the League of Nations stands, may materialise and be brought within the realm of practical politics. We fervently trust that nothing will be done to impair the supremacy of our Navy—a supremacy which, I submit, Britain has never once abused, a supremacy which has made possible its constant vigil, which has guarded our Homeland, our Empire and the shores of our great Allies, a supremacy which has guaranteed to the world the freedom of the seas.

On behalf of that wonderful Army and its Auxiliaries who have upheld in every sphere of war the best traditions of our race, and have brought the enemy to his knees, I would offer you their most grateful thanks. For tonight, I take it, our thoughts are more concerned with the achievements of that branch of the Service to which so large a number of our professional colleagues belong. As a temporary and humble member of that Organization, I would pay tribute to the great part played by the Royal Army Veterinary Corps in the mitigation of animal suffering, and the prevention and suppression of contagious disease. It stands without parallel in the history of previous wars, and we, as a profession, emerge from this awful conflict of nations with a splendid record of service well done.

For some years I have been in fear and trembling lest the motto emblazoned on the Arms of our College would require to be changed, and sometimes in the night watches I have conjured up visions of "Ora pro nobis" being inscribed thereon. But tonight, I rejoice to feel that a new era has dawned, and that our profession, clothed with a dignity and status hitherto unknown, stands re-born.

We owe, I consider, a very deep debt of gratitude to the Army Veterinary Service, for the position we at present hold. It is a position gained by hard and genuine work—work which has the Government's acknowledgement—which has demonstrated to the British taxpayer our importance from an economic as well as from an Imperial standpoint, and it is work whose eminence has recently received the gracious recognition of His Majesty the King himself.

Within the next few months many of us will have left the regis of the Royal Army Veterinary Corps, and returned to "The daily round the common task," but in whatsoever sphere we may find ourselves, the duty will devolve upon each of us to regard zealously the privileges we have won.

For the profession as a whole, the Council of our Royal College will become the chief custodian of its new found honour and dignity, and I would in all sincerity express the hope that the profession will gather round our worthy President and Council, and give to them its uttermost support. Let us lay aside that lethargy which has so often in the past marked our attitude to all things politic, but which should receive earnest study and

attention, if we are to maintain a high state of efficiency. "Vis unita fortior" graven on our escutcheon—must verily be our watchword, for, combination in these days of progress and change, is the keynote to ultimate success.

Much lies before us to be accomplished, and first and foremost I would wish that the Charters, Acts and Regulations governing our body corporate be carefully scrutinised, with a view to alteration or amendment. I cannot think, for instance, that it can make for good to elect Members to Council for the long period of four years. To become a Councillor is, I trust, the ambition of many members, and the profession should demand ability, zeal and reasonable interest in all matters affecting it, to entitle those who receive that honourable advancement to retain seats at our Council Table.

There are other points demanding careful revision upon which it is not now my intention to dilate; I would, however, ventilate the opinion held by a very great number of members, that the portals leading to our Schools be closed to all save those possessing the higher standard of education; a status worthy of our calling will attract the class of candidate on whom we may rely to uphold the prestige of Veterinary Science.

The success which has attended the labours of the Royal Army Veterinary Corps can be attributed to an admirable organisation, ably administered, executive work of high merit, and last but not least, freedom from lay control. I am, of course, well aware that the conditions which obtain in Civil Communities oftentimes militate against effective veterinary control, but the work of the Royal Army Veterinary Corps indicates what the profession can accomplish when working on its own initiative. It has been stated that, as we come under the classification "Experts," we can never be good administrators. The fallacy of such a statement is exposed when we find experts of the Sister Profession holding sway over Ministries of the Crown, and the past five years of war have shown that in the ranks of the Veterinary Profession we have men well versed in the intricacies of administrative detail.

With bills relating to Public Health and other legislative measures coming before Parliament in the near future, it is time that we bestir ourselves to make certain that the Veterinarian is not submerged, but that we assume our proper place in the advisory and administrative spheres to which we are entitled by reason of our special training.

The Medical Profession has already taken action, and from the *Times* of February 1st, I quote the following:—"There is thus a clear call to each to unite in the common purpose of securing to the Nation the considered and representative judgement of a great profession upon matters on which only this profession is competent to advise."

Surely gentlemen, this clarion call finds an echo in the heart of each one of us. Applied to our own profession never was duty more clearly defined. Let us act in like manner and state our claims. It is certainly time that we shake ourselves free from the trammels of lay control, and until we do so, our position must remain in jeopardy. Take that position in its relation to agriculture; we find that the terms agriculture and veterinary are oftentimes regarded by the public as synonymous, and it behoves us to clear its mind of such an erroneous notion. We are ever ready and willing to work side by side but on an equal footing with agriculture: we have every right to expect—yea demand, that we shall not be placed in subordination to it. The Board of Agriculture of England is a superstructure erected on the foundation of veterinary science—a sure foundation I trow—but do not let us hesitate to build a few stones into that superstructure—corner ones too—so that the public may recognise and appreciate the value and importance of

our position, and mark well the services of those eminent veterinarians who labour within its walls.

I fear I have grievously trespassed upon the privilege you have accorded me tonight, but I would plead as excuse an earnest desire to place before you the views of your professional brethren who labour in other spheres beyond the seas, who have little or no opportunity of stating them, but who look forward to the time when even they may find someone fully qualified to look after their interest in the Council Chamber.

Mr. President, Mr. Willett, Ladies and Gentlemen, I would again thank you for your generous acceptance of the toast to which I have endeavoured to reply. Before sitting down, I would in the name of my fellow colleagues in the Colonies and Dependencies of our great Empire, raise my glass to the success and prosperity of the Central Veterinary Medical Association.

#### "THE PRESIDENT."

Mr. J. W. McINTOSH: Ladies and gentlemen, it gives me great personal pleasure to propose this toast. We have had some very excellent Presidents during the forty five years existence of the Central Veterinary Society, but no President could have thrown more spirit and enthusiasm into the work of the Association than our friend the President this evening (hear hear). The deliberations over which he presided were discharged with a wealth and ripeness of knowledge and with an ease and dignity which is so essential in the qualities of the chair. Professor Wooldridge's activities are not confined to the work of the Association or the work of the profession. I know something of his activities outside these two organisations, and I can assure you that his work in other directions is just as freely given and just as highly esteemed and appreciated (hear, hear). We love him not only for his qualifications of head but for his qualifications of heart as well, a combination which makes him a favourite wherever he goes (hear, hear). Speeches are to be short and I can easily comply with this request as it requires very few words to present this toast, because Professor Wooldridge is well known to all of you. In giving you the toast I should like to associate with it the name of his wife Mrs. Wooldridge (hear, hear). I am quite sure I am uttering the sentiments of every individual in this room when I say that we wish them long life and happiness and all that they deserve—honour, love and troops of friends. (The toast was drunk with acclamation.)

The PRESIDENT: Ladies and gentlemen, will you kindly allow me in the first place to thank you very heartily indeed for the very kind way in which you have accepted the toast proposed so flatteringly by Mr. McIntosh, one of my predecessors in this chair. Please also accept the thanks of my wife. I am very flattered indeed, and very grateful, that you thought to include her in the toast, because I feel sometimes when I am out on what I report to be business, she may have some doubts (laughter). I think after tonight she cannot have any doubt at all that I am engaged on matters of public interest (laughter). I thank you, Mr. McIntosh for having made my peace more beautifully and more plainly than I could have done myself after considerable rehearsals: I have tried often (laughter).

I am very pleased indeed at the good number who have turned up to enjoy the evening along with us. There is a "but," and that is the number of empty chairs which one sees around, owing to influenza and other causes keeping people away at the last minute. There is always a "but" in these things, but one does not want to elaborate that point. We can always find grievances, and that reminds me of an individual who was always finding fault. A particular friend of his was well aware of that, and he said, "Look here, Jack, when you die and when you go to Heaven, if ever you get there, you will



still find fault." "No," said Jack, "surely not." "Yes, you will," said his friend. Subsequently they both died and afterwards met in Heaven. The friend said, "Hallo, Jack, you are here! How are you getting on?" Jack replied, "Pretty well, but—" "Oh," my friend said, "There is a 'but,' is there?" "Yes," Jack said, "My halo does not fit, and my harp is out of tune, and the blessed cloud I am sitting on is damp." I am getting rather into a lighter vein, which one should avoid on an occasion like this, because Mr. McIntosh has given you to understand that I am capable of something sincere. I will try to avoid that kind of thing. Unfortunately, I have to talk too much. I am somewhat in the position of the parrot of which you have probably heard, who was in the habit of imitating his master's whistle. He was kept in an upstairs room, and when he imitated the whistle, the little dog used to come running up to the room expecting to see his master, and when he entered the room the parrot would simply laugh at him. The little dog's tail would go down and he would walk disconsolately away. That sort of thing occurred frequently, but on one occasion the parrot happened to be on a perch and not in the cage. He repeated the offence, and the sagacious little dog, when he got into the room, caught hold of the chain on the perch and pulled the parrot down and gave him a good 'tousling,' and ruffled his feathers rather badly. Presently the poor parrot got back on to his perch, and the mistress of the house, hearing the noise, came up to see what was happening, and was in time to hear the parrot say, "That is the worst of me. I talk too damned much." (Laughter.) I promise you not to offend seriously in that respect to-night, but again I offer you my very sincere thanks for attending here and for having received the toast in the way in which you have.

Before sitting down I think I should extend a welcome to our visitors. I do extend a very hearty and cordial welcome to those who are our visitors to-night. We have with us some very notable representatives of the Royal Army Veterinary Service, whose names have already been mentioned. I do not need to mention their names again. Each and all of them I hope will accept our assurances of the great pleasure which we feel at their presence here to-night—not only the members of the permanent Service, but also those who are members of the temporary services, including Major Sturdy, Captain Fairholme and the other members of the Forces. Then also I would like to take the opportunity of thanking very heartily those of our friends who have entertained us right royally. (Applause.) We have had a real treat from them, and we hope to have more, and it is in order that we may get more that I will sit down at once. Ladies and gentlemen, I thank you very heartily indeed.

#### "THE LADIES."

Mr. F. W. CHAMBERLAIN: The honour has been thrust upon me of proposing what is, I venture to suggest, the toast of the evening. I only wish it were in more worthy hands than mine. Although I cannot do justice to the toast I am second to none in my appreciation of the sex. I am quite at a loss to know what to say. I asked my neighbour if he had any suggestions, and he said "Why, they won the war." I was quite overcome by this brilliant suggestion, with which I quite agree. It was unjust to ask me to propose this toast when there was a neighbour of mine with a sentiment of that description. It is quite unlike the remark I once heard a crusty old bachelor make. He said "In the beginning after man came woman, and she has been after him ever since—an eternal worry, but, by the grace of the Lord, many centuries afterwards, Scotch whisky was invented as a constant solace to man." Now I hasten to say that such a hideous sentiment does

not pervade the mind of any Fellow of the Central Veterinary Society. We are particularly pleased to see the ladies gracing our function. The Central Veterinary Society during the war, thanks to an enthusiastic President and an untiring Secretary (hear hear)—has been carrying on periodical meetings and trying to keep its end up, and it is a particularly happy augury for the future to meet again round a festive board with the ladies around us to give us a send off to better times. I couple with the toast the name of Mrs. Harrison. (The toast was duly honoured.)

Mrs. HARRISON: Mr. President and gentlemen. I must thank Mr. Chamberlain for all the nice things he said about us tonight. I claim that this is the toast of the evening. (Hear hear.) I believe this is the second time that ladies have graced your board. How you gentlemen enjoyed yourselves in the past, really I do not know. We have all enjoyed ourselves very much, and we are looking forward to the next annual meeting in November. You must excuse me for not making a long speech. It is not in my province.

HUGH A. MACCORMACK, Hon. Sec.

#### VETERINARY POLITICS.

Sir,—In reply to Mr. G. Mayall, I wish to state distinctly that I have *not* suggested an attitude of "patience and submission." Nearly all my letter was occupied with pointing out the folly (to use a mild word) of two suggestions put forward at a meeting held to discuss "veterinary politics." Anyone may do that, without incurring an obligation to advance suggestions of his own. I do not ask Mr. Mayall whether he considers the term "ass-like" courteous, or even civil—opinions upon courtesy and civility are so dreadfully divided in our profession.

Mr. Mayall puts a construction of his own upon what other men have written. That sentence I quoted from "Fra Diavolo's" letter does not recommend anything; it simply states an unpalatable truth which too many veterinary surgeons, like Mr. Mayall, persistently refuse to recognise. Perhaps Mr. Mayall sees by this time that the two sentences in which he deals with our alleged indispensability would better have been left unwritten. I notice that he does not touch my point of the long period during which all veterinary practitioners were unqualified; and I may remind him that unqualified veterinary men are much more numerous and skilful now than five years ago.

I agree that we *could* do without insurance fees of 2/6 or 3/6. At the same time I think it useless to demand a minimum fee of 10/6, as many seem inclined to do. A wiser course than either accepting half-crowns or clamouring for half-guineas would be to support the "National" in negotiating for a scale of fees on a percentage basis; and I think that, if the scale published recently by the "National" can be obtained, it will be as much as we can do with regard to insurance fees for the present.—Yours faithfully,

"DAGONET"

#### THE STATUS OF THE VETERINARY PROFESSION.

Sir,—Your correspondent Mr. H. C. Wilkie advances the view that the social status of the veterinary profession is precisely the same as any other profession, and that each individual's social position is only personal to himself. The second proposition is true, but the first most decidedly is not. The mere fact of being a veterinary surgeon is correlated with an atmosphere which society, spelt with a capital S, holds in the greatest disdain. Whereas in the case of the parson, the doctor, the barrister, or the man of letters the preliminary send-off is *typical*

*facto* favourable to his social position, and more especially to that of his womenkind. In the one case the choice of a profession tends to uplift, in the other to drag down. There may be a fair measure of snobbery at the root of this state of affairs, but nevertheless the central fact remains that it exists and is in strong evidence. How many public schoolboys ever dream of becoming veterinary surgeons? And how many veterinary surgeons' sons who have had a public school and a university education can be persuaded to follow the vocation of their fathers? Precious few, and the explanation lies in the circumstances that rightly or wrongly the veterinary calling, as such, is looked upon as a profession of relatively low caste. Viewed from this standpoint it does not appear to have made appreciable progress in the last 100 years, and certainly none at all in the last 40 or 50 years. At all times there have been both gentlemen and veterinary surgeons in the profession, but the veterinary surgeons have not all been gentlemen, and some of the gentlemen have not been veterinary surgeons. If Mr. Wilkie's propaganda work has a reasonable prospect of convincing Society that all veterinary surgeons are gentlemen practising their vocation from purely philanthropic motives a rise in the general scale may in the end obtain. In the meantime unseemly wrangles over a few paltry insurance fees, and rumours in the veterinary press of the formation of trades unions to enforce their payment by the strike weapon, are not calculated to do much toward raising the social status. People are generally judged by the company they keep and the customs they adopt.—I am, Sir, Your obedient servant,

"WATCHMAN."

#### Donation to Royal Veterinary College.

At the April meeting of the Governors of the Royal Veterinary College, London, the Earl of Northbrook in the Chair, the Secretary reported that a donation of one hundred pounds had been made to the funds of the College by the Thoroughbred Breeders' Association. In view of the present unsatisfactory state of the College finances this gift was most welcome, and it was decided that a letter be sent to the Association thanking them for their generous gift.

#### ARMY VETERINARY SERVICE

The King has granted the following authority to wear the Insignia of the Order of the Nile conferred by the Sultan of Egypt in recognition of valuable services rendered.

##### CLASS IV.

\* \* \*  
Capt. R. S. AUDAS, M.C., R.A.V.C.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Flynn, M. J., Capt. R.A.V.C.	£1	1	0
Hartley, C., Major R.A.V.C.	1	1	0
Holland, H. M., Keighley.	1	1	0
Macqueen, A. S., Glasgow.	1	1	0
McCall, J. McL., London, S.W. 1.	1	1	0
McDonnell, W. A., Lt.-Col., D.S.O., R.A.V.C.	1	1	0
Peggie, W. W., Biggar.	1	1	0
Robertson, A. L., Lieut. R.A.V.C.	1	1	0
Shepherd, T., Bootle, Liverpool.	1	1	0
Sumner, H., Liverpool.	1	1	0
Sumner, H., Junr., Liverpool, Capt. R.A.V.C.	1	1	0
Sumner, J., Liverpool.	1	1	0
Previously acknowledged	£706	5	0

April 16.

£718 17 0

#### OBITUARY.

Capt. GEORGE CLIFFORD HARDING, late R.A.V.C., Oakdene, Church Stretton.

Graduated, Lond.: July, 1914.

Mr. Harding died on April 13th, from pneumonia, following influenza, aged 28.

ROBERT McM. BANKS, Slamannan, Co., Stirling.

Graduated, Glas.: April, 1877.

Mr. Banks' death occurred on 8th April.

SMART—At Alpraham, Tarporley, on April 1st, Julia, the beloved wife of William W. Smart, I.S.O., M.R.C.V.S.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended April 12	5		4	5			1	8	126	227	8	22	10
Corresponding week in	1918		4	5			3	3	89	155	11	35	13
	1917		15	15					45	87	9	69	25
	1916		18	19					41	23	4	125	396
Total for 15 weeks, 1919	41	2	56	76	19	106	5	28	2379	4765	202	342	115
Corresponding period in	1918		100	115			12	33	2050	4007	217	249	96
	1917		205	237			10	19	1110	2356	386	680	251
	1916		199	235	1	24	20	59	1095	2674	157	1289	4007

(a) Confirmed. (b) Reported by Local Authorities † Counties affected, animals attacked:—London 7, Middlesex 1  
Board of Agriculture and Fisheries, April 15, 1919 Excluding outbreaks in army horses.

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

383

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1607.

APRIL 26, 1919.

VOL. XXXI.

## THE SPREAD OF RABIES.

No veterinarian was surprised at the appearance of rabies in the London district last week. Of course it has caused some public panic, and not a few dogs have been, and will be, needlessly destroyed; but there is no mistaking the real gravity of the situation. The Devon-Cornwall outbreak, the more recent Welsh one, this London one, which holds more serious possibilities than either, and the amount of illicit importation and movement of dogs that is known to have taken place, altogether present a distinctly ominous outlook. It is possible that we may have as much rabies in the kingdom this year as we ever had in the nineties. A trying time lies before practitioners, bearing much annoyance but also much serious responsibility. However many genuine cases of rabies occur, there will be many more false alarms; however few, there will still be so much disease in the country that to slight a single symptom that is even suggestive would be criminal.

## FEES IN IRELAND.

A report upon another page shows that the Central V.A. of Ireland is taking a commendable line with regard to this question. A considerable minimum increase in the ordinary fees has been approved, and it is suggested "that the members of the profession resident in the same districts should confer and agree mutually on this point." This encouragement of localised consultation and combination amongst groups of neighbouring practitioners seems the best policy for the societies to adopt, so far as the fees of general practice are concerned. National uniformity of fees is desirable, and may be attained in some special subjects, such as insurance work; but uniformity over the whole range of professional fees presents many difficulties. The variety of conditions in different districts, even sometimes in fairly closely adjoining ones, is very great. The work itself varies greatly; for what is an everyday item in some districts may be so rare as to be practically negligible in others. Other local conditions vary as much; and fees which are quite usual in some districts are almost unobtainable in others. All these difficulties are best met by local arrangements amongst the only men conversant with the details; and just now that seems to be the only effective way of dealing with them. It is also the best step towards a national uniformity, if that is really attainable. Probably no man now has a sufficiently wide knowledge of the subject to warrant a judgment on the latter point; but a good number of local combinations might render such knowledge available.

## THE "ASSISTANCE" OF THE PRESS.

The introduction and spread of rabies in England and Wales has received notice in the public press, mainly in support of the measures of control exercised by the authorities, but a contributor has sent us a copy of a local newspaper containing a column of matter of a quite different character, excerpts from which we print on another page. Fortunately, the mischievous character of the suggestions is lessened by the fact that the journal is a local one, and by the widely spread knowledge of the dread effect of the disease. But the attempt to belittle the skill and integrity of the veterinary officials concerned will find favour with a section of the public; and there are yet many who are unacquainted with the dangers of infection. Liberty of the press is worth preserving: but one can only regret to see it put to ill use by irresponsible persons.

In quite different tone is a short note in the medical column of *The Farmers' Gazette*, Dublin, which we give below:—

"Hydrophobia is such a frightful disease that no steps, be they ever so drastic, are too severe if to prevent it again invading this country. Hydrophobia in a human being is a sight that not every doctor has seen. It has, however, fallen to the lot of the writer to see and attend upon such a case—a horrible and harrowing experience he never wishes to encounter again as long as he lives. He has seen an airman burnt to death in a fallen aeroplane: but the latter sight was as nothing to that of the stricken wretch perishing in the throes of hydrophobia as the result of a bite from a pet retriever.

## Royal College of Veterinary Surgeons.

(Continued from p. 577).

### SPECIAL COMMITTEE ON VETERINARY STAFF.

On the motion of the President, the following report of a meeting of the Special Committee on Veterinary Staff, held on April 11th, was received and adopted:—

*Classification of Veterinary Officers.* The Secretary submitted correspondence showing that the veterinary officers of the D.A.T.I. are not included among the professional officers of the Civil Service, in the same way as veterinary officers of the Board of Agriculture and Fisheries. A draft letter to H.M. Treasury calling attention to this anomaly, and urging its immediate removal, was read and ordered to be sent to the Permanent Under-Secretary of the Treasury.

### PUBLICATION, LIBRARY, AND MUSEUM COMMITTEE.

Dr. SHARE-JONES read the following report of a meeting of the Publication, Library and Museum Committee, held on April 11th:—

**Presentations to Library.** The Secretary reported that since the previous quarterly meeting the following presentations had been made to the Library.

**Annali della Stazione sperimentale per le malattie infettive del Bestiame**, Vol. IV., Fasc. 1 and 2. "Delabere Pritchett Blaine," M.S. Article by Miller Christy. The Spinose Ear Tick, U.S.A. Dept. of Agriculture. Haemorrhagic Septicaemia, H. J. Washburn, U.S.A. Dept. of Agriculture. Preliminary Note on Sheep-Breeding Experiments, E. C. Oliver, L.C.V.D. Report on Experiment of Feeding Bullocks on Turnips and Straw, 1917-18, J. Hendrick and W. J. Profeit.

**Annual Reports:** Imperial Bacteriological Laboratory, Muktesar, 1917-18. Higher Education in State of New York, 1914-15. City of Manchester, Medical Officer of Health. Department of Agriculture, Nyasaland, 1917-18. Notes on Parasitic Mange, County of Lanark Veterinary Inspector.

**Calendars:** Registers of Pharmaceutical Chemists and Chemists and Druggists, 1919.

**Periodicals:** *The Journal of the Board of Agriculture*; *The Journal of D.A.T.I.*; *The Scottish Journal of Agriculture*; *Revue de Pathologie Comparée*; *Journal of Physiology* (per Sir F. Smith); *The Vet. Review*; *The Vet. Journal*; *The Journal of Comp. Path. and Therapeutics*; *The Vet. Record*; *The Vet. News*; *The Rhodesia Agric. Journal*; *New Zealand Journal of Agric.*; *Journal of Department of Agric., Melbourne, Australia*; *Bloodstock Breeders Review*; *British Medical Journal* (per Dr. Bradley); *Educational Times*; *N.Y. University Veterinary Bulletin*; *N.Y.*

**Annual Report.** A draft of the Annual Report was submitted, and after emendations, was approved and ordered to be issued.

**Dr. SHARR-JONES:** With regard to the Annual Report, it is impossible in a document of that kind to give a full account of the immense amount of work which has been done by the various Committees of the Council. That was brought out in discussion at the Committee meeting this morning, particularly with reference to the War Emergency Committee. It is open to any member of Council to amplify in any way he thinks fit the statement with regard to the work of the various Committees. With reference to the War Emergency Committee, Mr. Coleman in particular considered that the immense amount of work which that Committee had done had not received possibly the full amount of credit which it should receive in the Report which you have in your hands, and that he would like to make a personal statement with regard to it this afternoon. In that request I may say that the Committee fully concurred, because I am sure it would be to the benefit of the profession to have a little more information concerning the work of the Committee than can possibly be given in a brief Report of this kind. I move the adoption of the Report.

**Mr. COLEMAN:** I should be pleased to second that. In doing so, I feel in rather an unpleasant position, having at a certain meeting of the Royal Counties Society endorsed the opinion of the general practitioners as to the work of this Council. It had been my intention to bring before the Council to-day the fact that the reports of the various Committees of the Council are so inadequate that they convey to the general body of practitioners a wrong impression of the amount of work that is done. Owing to being on so few Committees, where very little business was done, and that in a very cursory manner, I endorsed the opinion of the Royal Counties Society, but, having discovered my mistake, I admit it. I was present at a meeting of the Parliamentary Committee yesterday while I was waiting for another Committee meeting—I did not join in the discussion—and I found that they did an enormous amount of work on subjects upon which I believe you received a resolution from the Royal Counties Society, which after hearing the discussion I felt was quite un-

necessary. Therefore I want to recall the remarks I made at the Royal Counties meeting, and I wish to ask the Council to support me in the suggestion that the reports should be more copious in the future, in order that the main body of practitioners may have a better and fuller report of the work that is done by the College. I should like now, if I may, to refer to the work that the War Emergency Committee has done for the Royal Army Veterinary Corps. I should like to read a motion that I brought before the Council last July to the following effect:—“(1) That the Army Council be respectfully asked (a) To consider the grave necessity of compensation upon ceasing their military duty being granted to veterinary officers who had practices prior to the war, especially those of the Territorial Force who were mobilised and had no time to arrange for the carrying on of their practices during their absence. (b) To revoke paragraph 2 (j) of Army Order No. 406 of 1915, as this is a grave injustice to Territorial Officers. (2) That the Parliamentary Committee appointed for the purpose be advised of the anomalies affecting the promotion of Temporary Officers A.V.C. and those of the A.V.C. (T.F.)” The cursory remarks that are made in the Report do not give the members of the Army Veterinary Corps any knowledge of what has been done by the Committee. I should like to draw your attention to the fact that Article 497 of the Royal Warrant for Pay, under which most of the Territorial officers joined, says: “Officers employed under the conditions of Article 496 shall, provided that they serve for the full period of their engagement or of the emergency in respect of which they were employed (unless a shorter period is specially approved by our Army Council) be entitled on the cessation of such employment to a gratuity at certain rates.” I will only speak about myself and not refer to other people, although there are a number of them in the same boat. When I resigned I applied for my gratuity, and I was told that it was not issuable. I then got my solicitor to make enquiries, and he found there is an Army Order, 406, of November, 1915, paragraph (j) of which applies to my particular case. It says: “The gratuity is not issuable to officers (j) who voluntarily resign their commissions or voluntarily revert to unemployment before the expiration of the period of emergency.” Army Council Instruction 1360 of 1918 gives some of the gratuities admissible under Article 497 of the Pay Warrant: “It is notified that in the event of an officer being allowed to be demobilised or to revert to unemployment at his own request in anticipation of general demobilisation, any gratuity under Article 497 of the Pay Warrant to which he is otherwise entitled up to the date of release will not be withheld by reason of his having asked to go. Paragraph 2 (j) of Army Order 406 of 1915 will not be held to apply to such cases. This Army Council Instruction is no authority for any application for early release from the army being made. It deals solely with the gratuity aspect of the case.” The point I wish to make is that the Army Council have been doing most strenuous work during the war and we can quite understand that such a small body of men as the Army Veterinary Corps has been overlooked in regard to this little matter, but I assume—I lay stress on the word “assume”—that by some means or other the steps that we have adopted here in this Council have come to their notice, that they have recognised the injustice of Army Order 406, and have revoked it by the issue of Army Council Instruction 1360 of 1918. I should like, if it is possible, to ask this Council respectfully to approach the Army Council and ask whether they cannot make it retrospective.

**The PRESIDENT:** I do not think that that is altogether in order, but I fully appreciate what you have said. You are speaking on the Report?

**Mr. COLEMAN:** I am amplifying the Report.

The PRESIDENT: I think you know as well as everybody else that the Annual Report is merely a record of actual work done put in the briefest possible way. We should all very much like to have the Report greatly amplified for the sake of the profession, but at the present time it is not advisable to go too much into detail. The expense of printing is simply awful.

Mr. COLEMAN: I think the profession ought to be properly informed as to what we do, and not be under the impression that we do nothing.

Mr. TRIGGER: I do not think it is sufficiently realised by the profession that, although this Council only meets on Friday afternoon, the whole of the previous day, from 11 o'clock in the morning until 5 or 6 o'clock in the afternoon, is devoted to Committee work, and also the whole of the time on Friday morning from 11 o'clock until lunch. When the members of Council come to London they have no chance of a "joy ride" of any sort; they have to work for the whole of two days. I do not think that is sufficiently realised by the profession.

Dr. SHARE-JONES: I should like to say, in reply to Mr. Coleman, that the specific statement is made in the Report that the Committee has dealt with the question of the pay and promotion of officers of the Royal Army Veterinary Corps. That results have followed, from whatever source they have emanated, speaks for itself, and I am very glad that Mr. Coleman has amplified the Report in the way he has done.

The motion for the adoption of the report was put and carried unanimously.

#### ELECTION OF EXAMINERS.

The PRESIDENT: We will now proceed to the election of Examiners, and here I have to announce that all the elections today are for the period of one year only.

The following gentlemen were elected:—

#### MEMBERSHIP EXAMINATION.

**Class D. Veterinary Medicine:** N. Almond, F.R.C.V.S.,  
F. L. Gooch, F.R.C.V.S.

**Veterinary Surgery:** R. J. Hickes, F.R.C.V.S.,  
Major W. S. Mulvey, F.R.C.V.S.

**Class C. Pathology:** H. Caulton Reeks, F.R.C.V.S.,  
W. Jackson Young, F.R.C.V.S., D.V.S.M.

**Materia Medica:** Hugh Begg, F.R.C.V.S.,  
Major J. Peddie, F.R.C.V.S.

**Veterinary Hygiene:** H. Taylor, F.R.C.V.S.,  
W. Woods, F.R.C.V.S.

**Class B. Anatomy:** H. G. Bowes, F.R.C.V.S.,  
W. E. Ison, F.R.C.V.S.

**Histology and Physiology:** W. Legge Symes, M.R.C.S.,  
F. W. Lamb, M.D.

**Stable Management, &c.:** H. J. Dawes, F.R.C.V.S.,  
Major A. B. Mattinson, M.C., F.R.C.V.S.

**Class A. Anatomy:** B. H. Mellon, Capt. A.V.C.,  
F.R.C.V.S., M.R.C.S., L.R.C.P., D.P.H.,  
H. L. Roberts, F.R.C.V.S.

**Chemistry and Physics:** J. M. H. Munro, D.Sc.,  
M.R.C.S., L.R.C.P., F.I.C.

**Biology:** W. B. Bottomley, Ph.D., M.A., F.L.S., F.C.S.

#### FELLOWSHIP EXAMINATION (Old Regulations).

**Veterinary Medicine and Surgery:**

Prof. J. Macqueen, F.R.C.V.S.,  
**Veterinary Hygiene and Sanitary Science:**

Wm. Woods, F.R.C.V.S.,  
**Pathology and Bacteriology:** J. Malcolm, F.R.C.V.S.

It was necessary for a ballot to be taken only in regard to the Examiners for Pathology and Materia Medica in Class C, in the former of which Dr. E. J. McWeeney had made application in addition to Messrs. Reeks and Young, and in the latter of which Mr. E. C. Winter had made application in addition to Messrs. Begg and Peddie.

The PRESIDENT announced that a letter had been received from Dr. McWeeney saying that, although his health had greatly improved, it had not done so to such an extent as to allow of his giving an absolute undertaking to attend at all the centres, but if re-elected he would serve the College to the best of his ability.

**Illness of Mr. Bloye.** The PRESIDENT: I should like to bring to the notice of the Council the illness of one of our late Examiners, whose name would have been on the list had he been in good health; I refer to Mr. Harvey Bloye. I suggest that we might send him a vote of sympathy.

Mr. MULVEY: I beg to propose that.

Major ABSON seconded the resolution, and it was unanimously agreed that such a letter should be sent.

**Appointment of Scrutineers.** On the motion of Mr. McKinna, seconded by Major General Thomson, it was, in accordance with custom, left in the hands of the President to appoint the scrutineers for the election of Council.

The PRESIDENT: That concludes our business, and I thank you very much for your attendance here to-day.

Mr. LAWSON: I should like to move a hearty vote of thanks to our President for taking the Chair.

Mr. TRIGGER: I second that.

Mr. MULVEY: I desire to support it. There are very few men who recognise the immense amount of work, the large number of hours and days, that our President devotes to this Council; I wish it were more widely known.

Mr. SUMNER: All the members of the Council fully appreciate it. Our President comes all the way from Windermere at the bidding of the Council more times in the course of the year than I dare to suggest, and the debt the profession owes to him is one it can never repay.

Mr. TRIGGER: I should like very heartily to support the motion. Never in the history of the Council has a President devoted so much time to the carrying out of his duties as Mr. Garnett has done since he has occupied the Presidential Chair.

Mr. COLEMAN: All the members of the Council are perfectly aware of the immense amount of time that Mr. Garnett devotes to the work of the College. He has been a whole-time officer ever since he was elected.

The resolution of thanks was carried by acclamation.

The PRESIDENT: Thank you very much, Gentlemen, for all the kind things you have said about me.

The meeting then terminated.

#### SOME OBSERVATIONS ON EQUINE INFLUENZA.\*

By G. P. MALE, M.R.C.V.S., Reading.

For some time I have been under a promise to your worthy and persistent Secretary to contribute something for discussion at your meetings, and I make no apology for choosing this subject, for I feel that there are so many points which still need elucidating in connection with it. It is only by discussing these things and comparing notes that we can hope to solve them. Also, with influenza affecting so many of the human race, it behoves us to consider whether there is any connection between it as it affects horses and man. As the two diseases resemble each other so closely the experience gained with animals may possibly be of some assistance to our human *confrères*, who up to the present appear to have no definite knowledge of either the cause, mode of infection, contributing causes, or treatment of the disease.

I do not propose to enumerate the symptoms or to

\* Read at the meeting of the Central Veterinary Society, London, on Thursday, April 3rd.

go into all the aspects of this disease, as the former are so well known to you all and time would not permit; but there are certain questions which I ask you to consider:—

1. The cause. 2. What is the relationship between so-called influenza and contagious pneumonia? 3. Is the pneumonia a secondary infection or a primary disease? 4. What conditions predispose towards it? 5. What is the incubation period? 6. How is the disease contracted? 7. How long can an animal be infective? 8. What methods of treatment are most successful? 9. Is there any known method of inoculation which can be recommended as a preventive or curative. 10. Is there any evidence pointing to contagion or infection from animals to man or *vice versa*?

The term influenza has been used in a very wide sense to include almost any catarrhal inflammation of the mucous membranes accompanied by fever, but I think it should be restricted to those cases which have what to my mind are characteristic symptoms, namely, the marked infection and often discolouration of the conjunctiva of the eye, accompanied by a high temperature, great depression, and oedematous swellings of the skin. The disease also is very contagious, and this should confirm any doubt that might arise as to its diagnosis. The old term "pink-eye" expressed the condition very aptly.

As we all know, the disease varies greatly in intensity, and, as in the human subject, some outbreaks are comparatively mild; in others the whole of the organs of the body—lungs, liver, kidneys, etc., are congested, the heart much depressed, bowels torpid, and often pneumonia or pleuro-pneumonia supervenes.

I do not refer in these remarks to the condition called catarrhal fever, or horse-dealers' fever, which I look upon as a separate disease due to the streptococcus of strangles; and should not be confounded with influenza.

*Cause.* A good deal of experimental work has been carried out with a view to finding the cause of the condition, and I think there is little doubt that it is due to an ultra-visible organism which is able to penetrate the closest filters and cannot be demonstrated.

The disease has been transmitted from horse to horse by injections of filtered blood, also by intravenous and subcutaneous injections of warm blood, and even semen from affected animals.

One experimenter was able to transmit the disease from experimentally infected animals to others, but in no case was he able to isolate micro-organisms from the blood or blood serum which proved virulent on inoculation.

In those cases where pneumonia has been a marked feature several organisms have been discovered.

Schütz and others have described a streptococcus which appears to resemble the streptococcus of strangles.

Lignières found a bacillus, the *pasteurella equi*, a variety of the bacillus *bipolaris septicus* of the haemorrhagic septicaemia.

Col. Watkins-Pitchford who carried out an investigation on contagious pneumonia, described a small bacillus which he found in the diseased tissues of the lungs and also in the blood. He was not able to classify it exactly, but possibly it corresponds with that noticed by Lignières.

Hutyra sums up the position when he says "For none of these organisms has sufficient proof been advanced that they can produce the disease primarily, and no one has ever succeeded in producing croupous pneumonia in its typical course artificially. It is therefore possible that the primary cause of the disease, or the infective agent which transmits the disease from animal to animal, is a micro-organism which is not yet known,

and that the streptococci as well as the ovoid bacteria which are normal habitants of the healthy air passages exert their pathogenic action only after the specific virus has already affected the animal, and they then subsequently produce the inflammatory changes attributed to them."

That is to say, the primary infection and the general febrile condition so weaken the natural defences of the body that the secondary organisms are able to exert their specific pathogenic effect. Watkins-Pitchford, although describing an organism frequently present, does not preclude the possibility of an ultra-microscopic organism in conjunction with it.

One's own observations of the disease bear out this idea, and I notice that human pathologists are also inclined to this view. In the human subject it was at one time supposed to be due to Pfeiffer's bacillus, but very probably it will be found, as with the organisms discovered in equine cases, that this is a secondary infection, and that the real cause is an invisible organism.

Some authorities hold the view that there are two distinct diseases—*influenza*, and *contagious pneumonia*, and that they are not related; but those who have closely watched an outbreak in a large number of animals will have noticed that some show characteristic signs of *influenza* without pneumonia, others have pneumonia in the later stages of *influenza*, while others again show pneumonia early in the course of the disease. Many of you will have attended large numbers of army horses in the first years of the war, and will have noticed this variation.

In a large thoroughbred stud that I attended every variety of the disease was shown. The first case was one of pleurisy in a foal about 3-4 months old that had arrived from Newmarket with its dam, about 3 weeks previously. On July 15th it was found to be ill, with high temperature, injected membranes, and great depression. The respirations became difficult, and on July 22nd I performed paracentesis thoracis, and removed ten measured pints of sero-fibrinous liquid from the left side of the chest. On July 23rd I removed eight pints of similar exudate, to the great relief of the foal. On July 25th breathing was much improved, but there was a large swelling on the side of the chest. I lanced this in several places, and a quantity of serous liquid oozed away. The foal made a good recovery, and by Aug. 7th was full of life and spirits, and subsequently has been raced.

No other cases developed until Aug. 17th, when the dam became ill with all the symptoms of a severe attack of "pink-eye," but she was convalescent by Aug. 28th.

On Sept. 21st a cart horse in an adjoining stable died rather suddenly. The cause of death was acute pneumonia, and it appeared that it had been unwell for some days but had been kept at work until the day preceding death.

The next case was in Nov. when pneumonia supervened on influenza in a thoroughbred mare, but she made a good recovery.

In Dec. a stallion became affected with pleuro pneumonia and purpura complications following on the usual symptoms of influenza. This horse also recovered.

A spell of most severe weather then came on which necessitated the animals being kept in their boxes which were rather small, with the result that the disease spread rapidly, virulence increased so that a large number of the mares who were then heavy in foal became affected, and many of them had pneumonia. Nearly all the young stock yearlings fell ill, but with these the disease was not nearly so severe. They had a high temperature, injected membranes, depression, swellings of the legs etc., but none of them had pneumonia. The early cases were of course strictly isolated, and the weather being fine the animals were kept out in the open as much as



possible; except the cart horses and stallion which were among the first to be affected.

I quote this outbreak as it showed all forms of the disease and it gives some indication of the period of incubation.

**Period of Incubation.** About three weeks elapsed between the first few cases, and also from the time the first foal arrived on the stud until it became affected.

In other outbreaks I have noticed a shorter period. A mare that brought the disease to one stud came from Ireland, and it was about nine days before any distinct symptoms developed. Some authorities state definitely that the period of incubation is from 4 to 6 days. When artificially inoculated the period varies from  $3\frac{1}{2}$  to 10 days. In infection following coitus 6 to 9 days.

In experiments made by Gaffky on pneumonia cases the period of natural infection was from 20 to 44 days, and in different outbreaks he noted there was a certain regularity about the time. It appears that the incubation period is variable, and I would suggest that in these delayed cases the organism, although living in the air passages, does not produce definite symptoms possibly for some considerable time, until a chill or over-exertion, etc., gives it an opportunity to develop; or the animal may be so resistant and the disease so slight that the symptoms are not noticed for some time. It would seem then that in order to prevent a stud being infected from foreign mares, it is not sufficient to isolate them for a few days. At least 3 weeks should be allowed before one can say they are safe.

**Method of Infection.** There is some doubt as to the method of infection. Experimentally it can be transmitted by intravenous and subcutaneous inoculation. In the natural way infection probably takes place by ingestion, inhalation, and also sometimes during coitus when the semen contains the organism. Some animals are much more susceptible than others, and some have great powers of resistance although constantly exposed to infection. I have noticed when animals are kept in different parts of a stud, perhaps 3 or 4 in each field, how one animal from this field and one from another field some distance away will fall. This can only be explained by admitting transmission by the atmosphere, which some authorities dispute.

Some observers claim that cohabitation is the only natural mode of infection, while others, for example Watkins-Pitchford, state that in his experiments he was unable to transmit pneumonia in this way. If the latter is correct it is obvious that the predisposing causes necessary for infection were absent, or that the animals used had obtained some immunity from a previous attack. Possibly they had sustained a slight attack of influenza and recovered, and consequently would not be susceptible to infection with the secondary organisms which appear to cause the pneumonia symptoms.

**Predisposing Causes.** Anything which weakens the defences of the body will predispose to the disease. It has been my experience that nearly all bad outbreaks have occurred during a long spell of severe weather, either cold or continuous wet, and no doubt that would reduce the vitality of the individual, as would depressingly hot or muggy weather. Over exertion or work of any sort will predispose to lung complications. So important do I consider this that in any outbreak in working horses I have the temperature taken once or twice daily; and when at the beginning of the war horses were taken from civilian stables, exposed to wet and cold or herded together in sheds without adequate food, every horse had his temperature taken daily, and if raised at all he was not put to work. By this means many fatal cases were prevented. If an animal worked with a high temperature pneumonia nearly always resulted. Overcrowding is one of the most fruitful predisposing causes of influenza. In an outbreak where

the horses were housed in open sheds close together, I had them turned loose in a field with surprisingly successful results.

Horses kept in badly ventilated stables quickly succumb. An open shed, a yard without covering even, if the animal is well rugged up, is preferable. Catarrhal affections predispose. Want of exercise is I believe a contributing cause especially among cart horses, the legs quickly become filled, the circulation congested, and when infection is present the animal will not be in such a fit state to resist it.

Pregnancy is another condition which favours the disease, and abortion is frequent in affected mares. In this connection it is interesting to note that the foals born at full time when their dams were badly affected usually lived. They were very icteric at first, and weaker than usual, but they quickly recovered, and did not contract the disease *ex utero*.

Animals between 3 and 8 years old appeared to be more susceptible than older or younger ones.

It may be said then that it is a disease of over crowding, and bad hygienic conditions.

As to the length of time an animal can be infective, cases are on record where stallions have been able to transmit the disease by coitus for months, and even one to two years, but this is of course exceptional.

Animals that have apparently recovered may be carriers for a considerable period, especially if they have suffered from the pneumonic form, and probably this is due to diseased foci being left in the lung.

In two outbreaks among thoroughbreds during the foaling period, although the mares were served from three to six weeks after convalescence the stallions did not contract this disease, and there was no evidence of a spread of infection by this means. The mares also showed no tendency to become barren, most of them were quickly got in foal. The risk, therefore, of infection from mares cannot be very great.

#### TREATMENT.

I do not propose to weary you with details of treatment, but I think most practitioners are agreed that good hygienic conditions are a *sine qua non*. A big box where the animal can walk about, with a half door which should always be open, are essential. If the atmosphere is humid and close the doors and windows should be wide open. The next most important point is a free action of the bowels. In this condition the bowels are very torpid and the liver congested, so that saline aperients and calomel are necessary, except in those cases where there is some enteritis.

The heart being greatly depressed needs stimulation to assist it to relieve the congestion in the various organs, and no drug has been so successful in my hands as hypodermic injections of strychnine several times daily. Medicine can be given in the form of electuary, but on no account should drenches be administered, and in bad cases even balls upset the animal. Stimulation of the chest walls has had marked results in some cases; the temperature has fallen, the animal left off grunting and the respirations improved. It increases the activity of the skin, and immediately relieves the congested heart.

Medicated inhalations of steam give relief in some animals, and oxygen is strongly to be recommended, given every two or three hours for 20 to 30 minutes, where pneumonia is a complication.

I have used nuclein in these cases, also various sera and vaccines, but I cannot honestly say that the results have been better with them than without. A vaccine is strongly recommended by some practitioners as a preventive and curative, but it is difficult to judge, unless it is used very extensively under various conditions, whether it is effective or not.

In one case where it was used at the request of the owner's veterinary surgeon on a particular mare, this animal was the only one on that farm which became infected, although large doses were given on several occasions. I would like to hear the opinion of members on this point.

Major Chambers has published results of treatment with formalin and creasote injected intra-tracheally 2 or 3 times daily. He advises 10 c.c. of a 10% sol. of formalin or 10 c.c. of the following mixture:—Creasote 1 part, 63% alcohol 10 parts. The latter mixture he prefers to the former, as the inflammation at the seat of injection is less, and it can be used more often. He claims that the mortality was greatly reduced by this injection.

Salvarsan and neosalvarsan have been used a good deal on the Continent, especially in Germany, but the reports from different sources appear to be somewhat conflicting, so that it cannot by any means be looked upon as a specific. There is some difficulty in its preparation, it must be injected intravenously, and some animals do not tolerate the drug at all well.

Quinine, antipyrin, antifebrine, aspirin, potassium iodide, etc. are commonly used, especially in the human subject, but personally they have been quite ineffective in my hands, in fact I am of opinion they are contraindicated, as they exert a too depressing effect on the heart. I prefer digitalis, strophanthus, caffeine, or ammonia compounds.

Major Newsom has used large doses of iodine; 1 drachm in bolus twice daily, and considers this method more successful than any other.

Various sera have been prepared, and some have been used on a large scale, especially the anti-streptococcus serum polyvalent, and it is possible this may have some effect in some outbreaks, but as the specific organism has not yet been cultivated, we cannot hope at present to get either a preventive or curative agent.

Immunization with serum from horses which had shortly before recovered from the pectoral form have also not given uniform results. Outbreaks vary so in virulence that what appears to be a specific in one outbreak may entirely fail in another.

As to my last point—Is there any connection between human and equine influenza? As far as I know this has never been suggested by any writers on the subject, but why I cannot say, seeing that the two diseases as they affect horses and man are almost identical. They are both very sudden in their onset, very contagious, and affect chiefly the respiratory tract.

A high temperature, great depression, congestion of the capillary vessels, disturbances of the liver and torpidity of the bowels are marked symptoms. In both the predisposing causes are identical. In both pneumonia is a frequent complication. In both the causal organism is very difficult to define, and all the signs point to an ultra-microscopic organism.

In both the disease varies greatly in virulence at different periods. Sometimes the cases are sporadic, at other times they take the form of an epizootic, and large numbers of animals and men are affected.

My thoughts were directed to the possible connection between the diseases by the fact that in nearly every outbreak in animals I was myself attacked. Medical men in charge of units where disease was rife on several occasions told me that the men in charge of the horses were going down with influenza, and as fresh batches of men nursed the animals so they were affected themselves. No doubt predisposing causes would be necessary, as in animals, to make them more susceptible, but where these causes were present the men certainly were very commonly affected. I do not suggest that humans often contract the disease from animals, but it does seem to me very probable that when men are put under certain conditions in which their vitality is lowered they become susceptible to the disease.

I should very much like to hear the experiences of members on this point and the others which I have very briefly and inadequately tried to introduce to your notice for discussion.

In most diseases, for example, tuberculosis, glanders, etc., it has taken many years of investigation to prove infection from animals to man or *vice versa* and I think research is needed also in this disease before one can say dogmatically that there can be no relationship. I hope that research may be forthcoming, and trust the Veterinarian will bear his share.

#### CENTRAL VETERINARY ASSOCIATION OF IRELAND.

(NATIONAL V.M.A.—IRISH BRANCH).

A meeting was held on the 24th Jan. at the Limerick Junction Hotel. The President, Mr. B. P. J. Mahony in the chair; other members present Messrs. M. J. Cleary, Mullingar; P. J. Howard, Ennis; L. P. Power, Cahel; T. R. Mulcahy, Clonmel; J. J. Condon, Tipperary; A. J. Macdonald, Kildorrey; and Capt. E. C. Winter, Hon. Sec.

The Hon. Sec. read the minutes of the last meeting, held at Turners Hotel, Cork, on the 7th July 1914, and explained that his absence on service, and the conditions existing owing to the war prevented his calling a meeting before. The president stated that no apology was necessary under the circumstances, and doubted if a meeting could have been got together in any case.

The minutes were approved, and signed by the president. Apologies were received from Mr. J. F. Healy, Hon. Treas., (whose car broke down on the road), Messrs. P. W. Creagh, A. Dobbin, J. W. Nolans, Prof. Craig, and Capts. P. D. Reavy and A. J. Moffett.

Votes of condolence were passed with Mr. Jas. Preston, on the loss of his son, a promising member of the profession, and with Messrs. A. J. Murphey and Capt. Moffett, who had both lost their wives recently, and the secretary was instructed to convey the resolutions to the members concerned.

The outgoing officers were unanimously elected to carry on the business of the association for the coming year.

The matter of finance was then gone into, and it was decided not to ask for any subscriptions for the years 1914, 15, 16 and 17 as the affairs of the association were suspended for that time, no meetings had been held and no expenses incurred.

Re outstanding subscriptions, the secretary was asked to again circularise the defaulting members, and to put in execution a resolution passed in October 1913, to make any member over three years in arrear to be a defaulter and to remove his name from the list of members.

The Secretary asked for, and was granted unanimously, some discretionary powers with regard to this resolution, after pointing out that, in his opinion, lapses in this matter were due more to carelessness than anything else, and the members present promised to help in collecting arrears and bringing in stray sheep to the fold.

The question of holding the meetings in places of easy access to the majority of the members was discussed at length, and it was decided to hold the next meeting at the Limerick Junction on the 30th April, at 1.30 p.m., and to let the July fixture stand over till the next meeting so as to be able to take the wishes of the other members into consideration.

A Committee of five was elected to carry on the work of the association for the year, consisting of:—Messrs. Mahony, Winter, Healy, Howard, and Cleary.

The consideration of the following resolutions forwarded by the Hon. Sec. of the Veterinary Medical Association of Ireland was then taken up:—

"We urge upon the Council of the Royal College of Veterinary Surgeons and the National Veterinary Association, that in regard to any proposed legislation relative to a Ministry of Health, the utmost vigilance be observed to ensure the establishment of a Veterinary Intelligence Section in connection therewith."

"That the profession cause action to be taken to have Veterinary Officers attached to each Rural District Council, to advise on matters relating to diseases communicable from animals to man, in somewhat analogous terms to the Medical Officer of Health."

Capt. WINTER proposed that the first resolution be formally endorsed by this meeting.

Mr. CLEARY: If that resolution takes effect, what will be our status?

Mr. HOWARD: The only thing you can do, if a Ministry of Health is established, is to urge on the Council of the Royal College of Veterinary Surgeons to see that a Veterinary Officer is appointed on the board set up by the Ministry, in the same way as Medical Officers were included in the Local Government Board in this country; and I notice that it is not intended to include Ireland in the jurisdiction of the proposed Ministry of Health. You may have seen in the press that the question was recently discussed by the Local Government Board and some of the members were of opinion that the functions of the Ministry of Health will be extended to this country.

The PRESIDENT: I think we should do all we can to have this bill extended to include Ireland.

The HON. SEC.: I think this resolution ought to be sent to the Local Government Board.

Mr. HOWARD: The Local Government Board may say that they are entitled to administer any such Act, and the Department of Agriculture may contend that they are entitled to act in the matter.

Mr. CLEARY: The Department of Agriculture offered fifty pounds a year to work Veterinary Dispensaries in this country, but no man could possibly do the work at that price.

Mr. MAHONY: It was absolutely impossible to do it at the figure offered, and in some districts five hundred would not pay a man for doing it.

Both resolutions were adopted.

Mr. MULCAHY: I notice by the press that in England the various Associations have considered it advisable to raise the professional fees charged, and I think we ought to do the same. The cost of living, travelling, wages and drugs have undergone a very considerable increase since the war started.

After a lengthy discussion, in which all the members present took part, it was decided that the ordinary fees should be raised by, at least, 50%, and it was suggested that the members of the profession resident in the same districts should confer and agree mutually on this point.

The Secretary was instructed to notify the press of this resolution.

#### SOME AMERICAN EXPERIENCES.

By Capt. E. C. WINTER.

Gentlemen,—I must first congratulate you all on our once more coming together after the stress and strain of the last four years, and express the pleasure it gives me personally to be once more amongst you, and to see our worthy Chairman in the seat of honour. I regret our friend, Jack Healy, has been prevented by a motor accident from joining us. I want also to remind you in his absence, that no society can get along without the sinews of war. Our subscription is a small one, and I think it is in most instances only cussed carelessness

that prevents it being paid. We have already overdrawn our account with the Hon. Treasurer, and that should not be. Please pay up now. Our last meeting was held at Turner's Hotel, Cork, on the 7th July, 1914, and a good deal of water has flowed under the bridges since, and a great many good fellows have "gone west," more's the pity; but we hope they have not died in vain, and amongst the number were a good many members of our profession, which profession has "done its bit" and received proper recognition for it too, from the authorities. I hope that, later on, some of the men who have served on the various fronts in the many theatres of war will come forward and give us of their experiences. It is only at meetings such as this that we can interchange ideas, and profit personally and professionally by so doing. I find after a generation's experience, that I have myself a lot to learn.

We meet diseases abroad that we never meet at home, and we meet others that are familiar and easily dealt with, which become under war conditions veritable scourges, and decimate the ranks and render the animals affected a drag on mobile forces. Wherever you get large numbers of animals together, under often very adverse conditions, you get disease rampant, even though those animals are not doing any work, as in remount depôts. How much more does this apply when the animals in question are asked to work hard on short rations, in all weathers, on all sorts of roads, and with all sorts of drivers. In those cases minor ailments, which at home are hardly worth thinking about, such as cracked heels, collar galls, saddle galls, catarrh, etc., make all the difference between the animal being a useful servant and a useless incumbrance. The question of skin disease also is a matter for anxiety, as well as a thousand and one other little things. In all those cases a little "horse sense" combined with veterinary skill works wonders. Now to the subject of my text.

After doing remount work in Limerick from the outbreak of the war, I was asked to take service with the British Remount Commission in Canada, and having accepted the offer I set sail from Tilbury Dock on the 19th Nov., 1914, on the good ship "Minnehaha" of the Atlantic Transport line, on which I had the good fortune to meet several old friends, including Capt. P. D. Reavy, of ours, and we had a very pleasant trip over. By the way, the "Minnehaha" made twenty-six trips unconvoyed, and was sunk on her twenty-seventh when protected. She had in the meantime several narrow escapes, and on one or two occasions gave a very good account of herself.

At New York we all got orders to proceed to Montreal for instructions, but had time for a bird's-eye view of that great city on Sunday, the 29th, on the evening of which day we became acquainted with the mysteries of the "Pullman car." I must say I like the British sleeping car better, unless one can afford the luxury of a drawing room or "compartment." The arrangements for dressing and the accommodation for smokers, in a land where almost everyone smokes, leaves much to be desired.

The one thing that impresses every Britisher first is the size of the country; one has to travel a couple of thousand miles to know what it means. The next thing that strikes one is the enormous waste of everything, and the untidiness, and next to that comes the universal "hustling." We here might with advantage adopt a little of that hustle, and I think that an ideal citizen might be found in a blend of the Yankee, the plodding Anglo-Saxon, the canny Scot, and the impulsive Irishman. In fact, the average American is a blend of many nationalities, and the only true American left is the Indian, who has adopted a good many of the bad points of civilisation, and left out the good ones.

The American characteristic *par excellence* is that of

"getting there" when he sets out, and letting nothing stop him. However, sad to relate, a great many "get there" only to find that they have suffered so much in health, owing to the nervous strain, that they are unable to enjoy the fruits of their efforts. "Quick lunches," and very often, no lunch at all, do not help one along a thorny road.

To return to the question of the supply of horses, and those much maligned animals the mules; the most amazing feature was, to us, the apparently unlimited supply of good, sharp, well bred, active gunners, with size, bone, and action, that turned up day after day and month after month at the dealers' shows. The supply of heavy draught horses and mules never ran short either, but the cavalry horse as we know him does not exist in anything like large numbers. Most of the horses of this type that were shown to us were of the "Standard" breed, and too long in the leg and too light in the barrel for our requirements, although they were not lacking in stamina or speed; in fact some of the so called "cow ponies" would give points to the best of ours in those particulars. The horse *par excellence* of the American continent now is the light draught horse or "gunner." Fortunately for the breeders of these animals, and for the British tax payer, the war came at a time when there was a slump in the horse trade in America.

The cavalry horse is rapidly vanishing from the American continent, owing to the development of motors, and the ban on racing in many of the States. It behoves the Government here to do something to encourage light horse breeding before it is too late, if the cavalry horse is not to become a thing of the past, and it seems to be the opinion of those best qualified to judge that this arm of the service is still indispensable.

The principal diseases for which we had to reject horses were wind, eye, and traumatic affections, but their feet were as a rule good, and about fifty per cent of those shown were innocent of shoes till they were purchased. As they were bought, the horses were shipped to concentration depots, and when possible they were held there for a month or six weeks before final shipment, it being found that a great many of them contracted disease during their passage through dealers' yards and livery stables, as well as from unclean cars on the railroads. The cars over there, as here, are all supposed to be thoroughly cleaned and disinfected, but this is nearly always done in a perfunctory manner, just as it is here.

Strange to say, skin disease was not prevalent, and mange was conspicuous by its absence. I don't think I saw more than four or five cases of actual mange in the thousands of horses I handled; ringworm was prevalent and became troublesome if not actively dealt with.

When one considers all the horses had to go through in the way of knocking about, the long railroad journeys,—often from one end of the continent to the other, and the unclean places they often had to be put in, one can only wonder at the excellent results obtained on the whole. Of course individual treatment was often out of the question, and skilled horsemen were conspicuous by their absence.

I shall describe later on some of the more common affections we were called on to treat, and meantime I shall say a few words about our friend the mule, that animal "without pride of ancestry, or hope of posterity," which does most of the hard work in the U.S.A. and lives on the hardest fare. It is said over there, and with some justice too, "that it takes a nigger to manage a mule," and the combination certainly seems to work well. There is no doubt that this animal likes to be made much of, and that he will do almost anything for one who understands how to manage him—he will be led but he won't be driven. I will back a team of good

mules to do 50% more work than a team of horses, and to live and thrive on 75% of the food. The Missouri mule is a very fine animal, and often grows to a great size without being leggy; a 17 hands mule is not uncommon, and he will weigh almost as much as a horse of the same height. Most of the mules bred in the States are raised in the Middle West, and the same applies to the horses of the light draught type.

Train loads of horses used to number on an average about 500, say twenty-five cars of 20 each in the case of riders or mules, and about 17 or 18 to the car of heavy draught horses. The average car is 36 feet long, but a good many of them run to 40, and 8 feet wide. Thirty-six hours is the limit allowed by law for horses or other stock to run without food or water, and that only under a special contract, the usual time being 24 hours; with a minimum stop over of five hours. It is wiser to allow twelve hours stop over if at all practicable, for it takes horses an hour or two to settle down and rest, and they begin to feed again after a lapse of four or five hours; one can then easier spot any that are off their feed or going sick. I also think 24 hours is quite long enough for a run—as that generally means 30 hours without food or water—it takes a couple of hours generally to load and cut out sick, and roughly about an hour to unload. In bad weather or in case of a break-down the limit must of necessity be exceeded, as it is not every station that has accommodation for large numbers of stock.

Where possible, it is always wiser to take temperatures before loading, as horses will be apparently in good health and frisky with a high temperature, and it is dangerous in the extreme to ship anything with a temperature of over 102. Such cases may return to normal in a few hours without developing any disease, but, on the other hand, if they are shipped may develop anything, and be very ill on arrival at their destination, or perhaps dead.

Now as to the diseases that gave us most trouble. The most common affection was what was called "shipping fever," which really meant that the animal had a rise of temperature and was ill, and might develop any one of a dozen diseases later on.

Some of the wisacres over there, who called themselves scientists, invented a cure and preventive, in the shape of a serum, which was prepared and administered under conditions which would shock anyone with any pretensions to scientific training. The losses directly attributable to the use of this nostrum sounded its death knell, but not before a few people made money out of it, and a few others lost a small fortune.

People who dealt in horses were at their wits end to combat this so-called "disease," and entirely overlooked the fact that care in selection, and a little nursing and individual attention, were all that was required in a great many cases. A careful man going through the stock every day and all day and spotting the animals off colour was worth all the nostrums put together.

Septic pneumonia was a common result of the strain put on the stock, and here again "horse sense," coupled with fresh air and nursing, worked wonders. Everything was tried from tapping the chest and sinapisms to patent preparations warranted to cure all the affections horse flesh is heir to, and it was found that letting them alone and supplying fresh air, even to the extent of turning the horses out in the open in the coldest weather, was the most effective treatment, coupled with the use of salines and green food, when available.

Strangles was a common disorder, but except where purpura developed was easily dealt with. Purpura was rather common where the depots were situated on marshy or very foul ground, as a good many of them were, owing to railroad facilities and other reasons.

Glanders, for a while, gave a good deal of trouble, and

it was found necessary to test all our stock at intervals. Parke Davis ophthalmic disc proved the most effective and easiest mode of testing, but in the later days of the commission, the intra-palpebral hypodermic method was used altogether. In the case of a doubtful re-actor the ordinary hypodermic test was used for confirmation, but in dealing with large numbers of horses or mules that was too troublesome in the first instance. Either of the eye tests required nothing more in the way of inspection afterwards than running the horses through a chute and looking at the eyes, and no previous taking of temperature was necessary. The "Complement fixation" test I look on as the last word in testing, and it was always employed in doubtful cases before destroying an animal.

Mules are not very responsive to any of the tests, even the latter one, and great care had to be exercised in handling those refractory animals and in weeding out the affected. They always got an increased dose of the serum, both in the case of the hypodermic and intra-palpebral tests.

Twenty four hours was generally long enough for the application of the eye tests, but it was always wiser to look them over at the end of forty eight hours, as some cases showed up then. I have here a couple of typical photographs of re-actors to the eye tests.

Some of the States insist on all animals of the equine tribe being tested before they are allowed to enter, or travel, while others do not worry. It would be far better if there was a federal law to equalise these regulations and deal with all the States alike, as it would prevent one State sending contagion into another by various routes. This is where our insular position helps us in combating contagious diseases.

Gangrenous Dermatitis was for a while a great pest in some of our depots, and if not detected early gave a great deal of trouble and caused a great deal of loss. The first thing noticed was that a horse was slightly lame, and very soon—if not promptly treated, became very lame, and the disease was gone so far that a cure was almost impossible. In deep ground a slight lameness might escape a not very keen observer and the disease meantime was making progress and the contagion spreading.

On washing off the feet and legs a nasty sore was found round the coronet or higher up the pastern or leg, or perhaps two or more such sores were found. The wounds looked unhealthy and there was a nasty ichorous discharge, and possibly a slough or two. If allowed to go on the trouble spread to the deeper structures and caused the death of the patient. Foul ground, contaminated by animal excrement, contributed largely to the spread of this affection, and on its appearing in a corral it was always advisable to have the horses removed to clean dry ground. The treatment eventually adopted for affected cases was to wash thoroughly with petrol, remove any dead tissue, and dress with a strong caustic, thereafter treating as a simple wound with dry dressings. The in-contact horses should all be walked through a bath containing a solution of cupri sulph. or some such preparation, and the feet and legs examined every day. Quicklime on the floors of any standings also acted as a preventive. I have seen as many as 500 horses affected with this fell disease in the early days out there, and the life of the V.S. in charge was not exactly a bed of roses. Those horse had at this time to be treated in the open, on deep ground in bad weather. Later, smaller depots were the rule, and it was possible to get all sick animals under cover. This disease seems to correspond with an affection called over there "Summer sores"—with this difference, that "Summer sores" may affect any part of the body. In either case the bacillus necrosis does not seem to enter the unbroken skin, and a wound or bruise is necessary beforehand.

Fistulous withers was not at all uncommon, and gave a great deal of trouble from time to time. All sorts of treatment were tried; finally it was decided to give it best, and dispose of any affected animals as soon as noticed. The origin of this affection is still in obscurity, and the theory of its being due to a wound or bruise is not always tenable. I think there is something in the theory propounded in one of the veterinary journals recently, that it is due to filaria, and the subject is worth investigating. The affection is very prevalent in the States, even in horses that have never been worked or housed.

Lice, in the spring-time were very prevalent, and it was almost impossible to give the horses proper grooming, owing to the cost of labour and the shortage of anything like grooms. Most of our labour was, to say the least of it, unskilled.

Ringworm if not seen early and checked gave a lot of trouble too, but, strange to say, mange was not prevalent, although the U.S.A. got the credit of sending the disease to France—to my mind, undeservedly. A very good line of treatment for all skin affections was the sulphur vapour baths just being tried when I left the States.

Fractures and traumatic affections generally were not so common as one might expect, considering the large numbers of animals handled. This immunity was due in a great measure to the fact that all horses were unshod behind. I have yet to meet a broken leg or very serious injury caused by a kick from an unshod horse.

Parturition cases were common at certain periods of the year, and a very large number of the mares were in foal. Often a foal was slipped in the railroad cars or the corrals and it was not easy to find the mother. Those cases as a rule gave very little trouble, and the mare, if found, was all right and ready to go on in a day or two. Some of the foals were reared but proved a financial failure.

I have touched on only a few points I would like to elaborate, but I am afraid I have already exhausted your patience. I would have liked to tell you of the country and its grandeur and vastness, of its yet undeveloped resources, of the splendour of the Rockies, of which I saw a good deal, of the verdure-clad hills of Virginia, the blue-grass region of Kentucky, and its caves, the rolling wheat and corn belts of the west, the alfalfa fields, the sugar and cotton and tobacco plantations, with their indispensable "coons." Also of the up-to-date cities, which often spring up in what to our ideas is a marvellously short space of time.

I had the pleasure of going through some of the veterinary colleges out there, and attending some of the meetings of the veterinary associations, and I can honestly say that with all their up-to-dateness, and all their push and go, they have nothing on us over here; quite the reverse in fact. The American practitioner is, as a rule, far behind the Britisher, and the Canadian is worse. They have a few stars in the States, but the average practitioner is far behind ours, and a great many of them do little more than inoculate hogs against hog cholera. Their colleges are not as well equipped or staffed as ours either.

I thank you gentlemen for having given this rather disjointed paper such a patient hearing, and I hope by our next meeting, to be able to induce some of our members who have served in France to give us of their experiences there.

Mr. MARONY: Gentlemen, you are after hearing a very elaborate paper read by Capt. Winter, whom we all congratulate on his return after his very strenuous and exacting duties in America; and we are all glad to see him so hale and hearty, and hope he will continue so for many years to come. I am sure it was a very great strain on Capt. Winter to leave home and family to

undertake a very trying business in America, but, like a great many others, he answered the call of duty, and we are pleased to see him back again. Many others who answered that call were destined never to return. Personally I am very proud of the part played by the profession in this war. The members of the profession discharged their duty well in alleviating the sufferings of the dumb animals committed to their charge. Further, I am glad that their services have been recognised by the State and that a great many honours have been bestowed on them. I hope that like Capt. Winter others of them will come forward when they return and give us the benefit of their experience while abroad. I also think the time has come, with the conclusion of the war, when our profession should receive from the State that recognition which is its due; it rests with ourselves to raise the standard of the profession, and I trust we will all endeavour to do that, by individual and collective effort.

I notice that Capt. Winter has made no mention of cases of lockjaw amongst his patients, now you know that in this country we get a great many cases of lockjaw, possibly in America the microbe is rare. [Capt. Winter: Quite the reverse.]

The PRESIDENT: Let me say that the paper is interesting and instructive, and I hope it will be spoken to by the members present.

Mr. HOWARD agreed with what the President had said, and commented on the rarity of mange amongst the American horses. He further stated that the Army horses were the most fruitful source of mange in this country. He asked if Capt. Winter knew if the disc had been tried in testing for tuberculosis. He was surprised to hear that there was not more success in the use of the serum for shipping fever. He was also pleased to hear that in spite of Yankee bluff we can still more than hold our own against them.

Mr. POWER agreed with the essayist in the efficacy of fresh air and cleanliness in the treatment of pneumonia and allied affections. He did not agree with Mr. Howard's remarks about the Army and mange; he lived a long way from a military barracks and yet he got plenty of mange cases.

Mr. CONDON endorsed Mr. Power's remarks *re* mange, and agreed also with the remarks made about pneumonia, but remarked that early on in France they had not much time to treat horses.

Mr. CLEARY: Capt. Winter does not give us much idea of the prevalence of disease in the States in which he travelled, and he seems to convey the idea that a large percentage of the contagious diseases broke out in the depots. It would be well to know if veterinary surgeons in the districts from which the horses came found instances of those diseases. It would be very strange if they did not.

Mr. HOWARD: It is well known that when horses are herded together, as they were at the beginning of the war, disease breaks out amongst them. I remember in the Limerick depot 30% of the horses present were sick from one thing or another.

The PRESIDENT: There are instances where horses from infected districts convey disease when huddled together with others.

Mr. CLEARY: But the disease must have been there all the time.

Mr. MULCAHY spoke again on the army being a source of mange in the country and gave instances to support his assertion.

Capt. WINTER: There seems to me to be one or two slight misconceptions about my paper which I wish to clear up. I never meant to say that I saw no tetanus in the States; what I said was that I never saw a case of tetanus follow dermatitis; there is tetanus to be seen, but we saw very little of it. Also it was impossible for

us to tell if there was disease in the districts from which horses came. The country is a very big one, and some of the stock we bought came thousands of miles to the sales yards. Mange does exist, and in some districts is prevalent even amongst the cattle, and there are government dipping stations for them, but my remarks applied more to the animals we had to handle. Most of the stock we bought came off farms and all were supposed to have been worked, we bought no range stock if we could avoid it. Those seasoned horses rarely took sick, the "green" ones were what gave the trouble. I would like to ask Mr. Cleary if he ever saw 5000 horses together. I have seen 20,000 in one depot.

The tuberculin test is largely used in cattle in the States and Canada, but the eye test does not work so well in the cow as it does in the horse. The intradermal test is often used in the case of cows, with good results.

The question of the prevalence of mange, or otherwise, in army horses I am not at liberty to discuss further, but I have, like some of the other members here, seen a lot of mange in this country that could not be traced to army horses; it is a good deal more common than is supposed, and a great many carriers and disseminators of the disease are never suspected of being affected at all.

The one disease that worries the farmers in the States is "hog cholera" and in spite of millions of inoculations every year it is still rampant.

I had the pleasure of going through Parke Davis & Co's works and farm, when passing Detroit, Michigan, and the place well repays a visit. Things in the drug way are done on a very large scale, and the utmost care and supervision are used to procure purity and exactitude in all their preparations. A very large staff of analytical chemists is kept for testing the materials used, as well as the finished products; anything that is not up to standard is thrown away at once.

I must apologise for the incompleteness of this paper, there are many things omitted that I would like to have included, but time would not permit. I have tried to give you my impressions of some of the things I have seen and experienced, and I can only conclude by saying that I am very glad to be back again where I belong.

## VETERINARY POLITICS.

Under the pseudonym of a well known and eminent journalist "Dagonet" is pleased to launch a scathing criticism on the proceedings of the Eastern Counties and Central Veterinary Societies. The former for trying to put pressure on the Insurance Cos. to increase their scale of fees. In these days of increased cost of living enhanced value of animals, therefore necessarily increased premiums, it is surely only reasonable to ask that the professional fees, which I submit are meagre in the extreme, should be raised. In other words this Society is trying to better the profession which "Dagonet" is pessimistic enough to think can be done without. Then he joins issue with the "Central" more especially in regard to District Representation. I quote his words "The system of Societies running candidates for the Council has given us many mediocrities and some non-entities." This statement has I think gone farther than any that has yet appeared, for there have been very few changes on the Council during the last 10 years, therefore the mediocrities and nonentities must still remain. How grateful the Council would be to "Dagonet" if he would forward his name.

I, as one of the candidates mentioned in his letter, may be misguided in my efforts to stir up the lethargy in which the profession has sunk, but so long as I feel that my endeavours are earnest and that they are used for the furtherance of our honourable profession, so long



shall I continue my present course. No apologies are needed for either Society, we will let the profession as a whole judge them.

April 17.

J. WILLETT

I have read with some amusement "Dagonet's" letter, in your issue of April 5th in which he challenges the collective wisdom of the Eastern Counties and Central Veterinary Societies. What a pity such a display of criticism should be lost under a *nom-de-plume*. I would suggest that the most convincing proof of the writers wisdom, would be to withdraw from cover and fire his "gas" shell from open ground, then the profession would be in a position to relegate to its proper place that intelligence he claims, and the position he occupies in the scientific and social worlds—a position with which he appears to be quite satisfied.

I do not think that either of the Societies referred to will object to criticism—in fact we welcome it, and so far as I am personally concerned, that was my object. It was no part of my object to elaborate "points of remedy." I made suggestions and I am quite willing to take the collective voice of my professional brethren. Unless "Dagonet" is prepared to own to his utterances then I think he had better remain in obscurity for ever.

April 17.

J. W. MCINTOSH.

[The foregoing were too late for last week's number, which was issued on Thursday.]

#### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND.

10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged:—

"One who has been there"	£100	0	0
G. A. Banham, Cambridge.	5	0	0
R. H. Bird, Greeley, Colorado.	2	1	1
J. J. Hilliard, Major R.A.V.C.	1	0	0
H. M. Holland, Keighley.	1	1	0
J. Lawson, Timperley.	1	1	0
W. D. Rees, Trealan.	1	1	0
Previously acknowledged	133	19	6

April 16.

£245 3 7

#### ARMY VETERINARY SERVICE

Extracts from *London Gazette*,

WAR OFFICE, WHITEHALL, April 12.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. P. D. Reavy relinquishes his commn. on account of ill-health (April 13), and retains the rank of Capt.

April 14.

The follg. temp. Capts. relinquish their commns. (April 15), and retain the rank of Capt.:—J. M. Whyte, on account of ill-health caused by wounds; J. McC. Barry, on account of ill-health.

April 16.

Temp. Capt. E. Patrick resigns his commn. (April 17), and retains rank of Capt.

To be temp. Maj.:—Capt. L. Danels, R.A.V.C., for service with the Egyptian Army (July 1, 1918).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

April 10.

Capt. (actg. Maj.) D. R. C. Tennant relinquishes the actg. rank of Maj. on ceasing to be empld. as D.A.D.V.S. (March 1); Capt. A. J. Curtis relinquishes his commn. on account of ill-health (April 9) and retains the rank of Capt.

April 11.

Capt. R. E. Beilby to be actg. Maj. while empld. as D.A.D.V.S. (Dec. 25, 1918); Capt. (actg. Maj.) H. E. Powell relinquishes the actg. rank of Maj. on ceasing to be so empld. (Dec. 25, 1918).

#### ORDER.

RUSSIAN TROOPS IN NORTHERN DISTRICT.

No. 88.

22nd March, 1919.

Archangel.

In reward for special services in the strife against the enemies of Russia in the Northern District, for distinguished service in the field, and for services connected with the re-organisation of the Russian Army—by virtue of the authority vested in me by the Provisional Government, I award the following:—

ORDER OF ST. STANISLAV, 2nd Class with Swords.

Major F. CHAMBERS, O.B.E., R.A.V.C.

Capt. G. BAENETT, M.C., R.A.V.C.

ORDER OF ST. STANISLAV, 3rd Class with Swords.

Lieut. J. McALLAN, R.A.V.C.

#### ELECTION ADDRESS.

To the Members of the

Royal College of Veterinary Surgeons.

Gentlemen,

I have been nominated for re-election to the Council of the Royal College of Veterinary Surgeons, where I have served for the last twenty years, and I venture to ask my friends to return me once more. My attendance at the Committee and Council Meetings during the last four years will, I think, show that I have the best interests of the profession at heart, and the necessary time to devote to its service. I have served on the Registration, Parliamentary, Honours and Prizes, and Finance Committees, and I can assure you that I take my duties seriously; and if you do me the honour to return me to the Council at the forthcoming election, my time and services will be given to your interests as freely and devotedly in the future as in the past.

Yours faithfully,

ALEXANDER LAWSON.

Manchester, April, 1919.

#### The "Assistance" of the Press.

The following extracts are from a column in *The Express and Echo*, Exeter, under the headlines "Is it Rabies?" "Opinions of a Famous Expert." It is difficult to see what useful purpose can be served by the publication of an individual "opinion" which traverses the experience of many men who have made disease the study of their lives. Yet, since D.O.R.A. has ceased

from troubling, any remonstrance by the authorities would probably be labelled "interference with the liberty of the subject."

"A few days ago, I called on probably one of the best known 'doggie' men in the world. As a judge, exhibitor and breeder of fox terriers, Mr. Vicary's name is known in every civilised country on earth. He says: 'I am not at all satisfied that they have proved a single case of rabies.'"

He told me that he had only once in his long experience seen one case of indisputable rabies, and that was a hound in Devon some years ago, when the trouble was stamped out by destroying the whole pack.

"Nobody seems to understand what originates the disease in the first place, but we do know that if one mad dog bites any other animal the terrible disease is passed on. The first case is notified, let us say at Plymouth. The next is discovered at Exeter, I merely take these towns as examples. Now, the mad dog in Plymouth obviously could not have bitten the dog in Exeter, could he?"

"We have had it reported that a large number of human beings have been bitten by dogs declared to be mad. Are they a penny the worse for it? Not in one single case. Now, I know, of course that they have received the Pasteur treatment, but I am not convinced. I do not remember a cure for anything else which is so unfailing."

"The methods employed to determine cases, are in my opinion very curious. When a suspected case is reported they destroy the dog. If I were responsible I should lock the suspected animal in some perfectly safe place and keep it under observation. If he had rabies he would soon die. He would be unable to take his food, as in this disease there is a constriction of the throat which makes it impossible for the dog to swallow

If the animal is able to eat and drink easily that is proof that there is no rabies."

"Some long time ago I had a dog which had all the symptoms of madness. Any of the inspectors would have declared it a case of rabies. They would have been wrong. It was merely a case of distemper which, in this instance, affected the brain."

"What is it the matter with these dogs? In my opinion they have epilepsy brought on by the rubbish sold as substitute dog foods during the war. I do not consider there has been one single case of rabies."

#### Importation of Dogs from France.

In a written answer to Major Glyn, Mr. Churchill says that owing to the importation of rabies into this country through dogs brought from France, it became necessary to forbid officers and men to bring back their dogs with them.

To allow dogs to be brought home, the Army Council accepted the generous offer of the Royal Society for the Prevention of Cruelty to Animals to defray the cost of maintenance for the six months' quarantine required by the Importation of Dogs Order, 1914, of 500 dogs at a time at the quarantine station at Hackbridge, which has been approved by the Board of Agriculture.

Under the arrangements which have been made, the dogs are collected in batches in France, and, when passed free from symptoms of contagious disease by an officer of the Royal Army Veterinary Corps, are sent by special arrangements to Hackbridge. During March over 100 dogs have arrived at the kennels there. Dogs may also be brought over direct by private arrangements between the owner and the Board of Agriculture and Fisheries, but this, of course, entails expense to the owner.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended April 19	9		5	8					112	199		32	15
Corresponding week in {	1918		9	9			2		91	167	5	34	10
	1917		15	11					44	75	6	77	35
	1916		8	11			1	1	31	81	4	118	353
Total for 16 weeks, 1919	50	2	61	84	19	106	5	28	2504	4982	202	374	130
Corresponding period in {	1918		109	124			12	35	2241	4174	222	283	106
	1917		220	253			10	19	1154	2431	342	757	286
	1916		207	246	1	24	21	60	1125	2755	161	1407	4365

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, April 22, 1919

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND. Week ended April 12		...	...	...	...	...	...	Outbreaks	...	...	...
		...	...	...	...	...	...	5	4	...	...
Corresponding Week in	1918	...	...	...	...	...	...	6	3	1	1
	1917	...	...	...	...	...	...	...	5	10	43
	1916	...	...	...	...	...	...	2	6	9	32
Total for 15 weeks, 1919		...	...	...	...	...	1	1	53	125	47
Corresponding period in	1918	...	1	1	...	...	...	54	144	7	27
	1917	...	2	2	...	...	1	1	16	77	472
	1916	...	1	5	...	...	...	28	190	95	423

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, April 14, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1608

MAY 3, 1919.

VOL. XXXI.

## SCHEDULED DISEASE.

Practically a third of 1919 is now over, and we can form some idea of the start we are making in our post-war campaign against scheduled disease. The outlook is threatening, and will be so for a long time; but our position is as good as could fairly have been expected.

The most serious figures are those of rabies and foot-and-mouth disease. It may be that we are hardly beyond the beginning of our troubles with rabies; but those troubles would not have arisen if British subjects had not broken the law. If to the 55 cases returned this year up to date are added the 104 at the latter part of last year, we get a truer idea of the extent of the mischief. The Board would have kept rabies out of the Kingdom if their regulations had been obeyed; and will stamp it out in time if they are given a fair chance.

The number of outbreaks of foot-and-mouth disease this year shows that it is still a serious danger; but the total of animals involved is fortunately relatively small.

Swine fever shows a distinct increase upon last year, but is still far below the figures of 1917, which in turn do not approach those of 1916. Possibly the history of the disease during these later years may suggest to the Board some new regulations.

Parasitic mange continues to rise; but so far this year the figures do not show anything like the increase indicated in the corresponding period last year, so we may hope that we are in sight of regaining control over it.

The three remaining diseases—anthrax, glanders, and sheep-scab, have all declined more or less. In the case of sheep-scab the decrease from last year's figures is only slight, but those for anthrax show a much greater drop.

One notable feature in the returns is the small amount of glanders. There was reason to fear an increase this year; but so far there have been fewer cases than any previous year has shown in the corresponding period. Glanders, from its course and nature, is a risky subject for prophecy; but our present outlook upon it is about as helpful as it well could be.

The Board have now entered upon a distinctly difficult period. A good start has been made; but the general co-operation of practitioners is essential. There is always more danger of contagious disease at the close of a great war, and an isolated case of carelessness might have serious consequences.

## MALIGNANT ŒDEMA IN SHEEP AND PIGS.

Oppermann, in 1913, published a lengthy article upon this subject. He commences by recalling the fact that malignant œdema complicates, by preference, wounds of the skin and mucous membranes which are necrotic, which bleed little, and the edges of which after a short time close and become scabbed, thus impeding the access of air—that is, of oxygen, which is the chief bactericide against anaerobic germs. The practically constant presence of the specific microbe of malignant œdema in most solid materials which come into contact with the animal body, the superficial earth, air, litter, instruments of grooming and of shearing, walls of stables, fences, more or less dirty hands and clothing of attendants, etc., make it possible for the disease to appear upon all farms. Moreover, it is now known that the receptivity of the animals of the farm is general; the horse, rabbit, pigeon, guinea-pig, and mouse may all be naturally infected, and nearly always succumb to the disease. The reason why malignant œdema is not observed daily is that usually phagocytosis is so active in the parts inoculated that the spores introduced into the tissues are unable to develop to bacilli. This phagocytosis may be counteracted or annihilated by the accidental presence of other germs, such as staphylococci, the bacillus prodigiosus, etc.; in these cases, the disease generally follows its normal course. It is also known that, whenever the tissues are infiltrated, severely contused, or necrosed, the spores of malignant œdema may evolve to the bacterial form without needing the co-operation of microbes neutralising phagocytosis.

In *sheep*, malignant œdema is a mortal affection. The author names four principal accidental causes, namely:—parturition, castration, shearing, and bites of dogs.

Malignant œdema following parturition, also called "pseudo-charbon post-partum," is comparatively frequent. In the space of five years, the author observed it in 22 flocks; on one occasion, 46 ewes died in a flock of 350 head. The disease begins in the vagina or in the neighbourhood of the vulva; from thence the characteristic swelling extends upon the buttocks, into the perineum, and even affects the udder. The prognosis is unfavourable.

As therapeutic treatment, the author advises multiple scarifications, followed by the pressing out of the infiltrating liquid and the injection of a 2% potassium permanganate solution or a peroxide of hydrogen solution, at the periphery of the swelling. This should be done at the very commencement of the disease, and even then it very rarely succeeds.

Prophylaxis is therefore preferable; and the author gives careful directions for this, which may be summarised as follows. He attends carefully to the litter, and immediately removes the whole of the after-birth. He very carefully disinfects the genitals, buttocks, and perineum a short time before parturition; and, immediately after it, he annoints the vulvar mucous membrane with an ointment containing 2% of potassium permanganate. If special lambing premises are available, only the ewes ready to lamb are brought there, after previous disinfection of the genital organs and their immediate neighbourhood. If no such premises are available, a portion of the sheep-fold is taken for the purpose, and fenced in by a double row of hurdles. Its surface of dung, etc., is removed, the new surface is sprinkled with a disinfectant, then covered with a layer of turf, and finally with soft clean straw. Soft straw is preferable to stiff coarse straw, as the latter may injure the lips of the vulva, which are always slightly swollen after parturition. Clean straw always contains fewer malignant oedema spores than that which has moulded, which is more or less in putrefaction. The author emphasises the danger from any use of the leaves, etc., of beets, which are usually soiled with earth, and much contaminated by the malignant oedema microbe.

Castration, which the shepherds usually practise without the least antiseptic precaution, is often accompanied by a direct inoculation of the spores of malignant oedema. From a prophylactic point of view it is important to operate as aseptically as possible in the first place, and afterwards, as an open wound remains, to avoid subsequent inoculation. For the latter object, the same precautions as are taken in lambing suffice.

Shearing by means of shears exposes the animal to the risk of multiple wounds of various depth. Infection may be direct, or follow subsequently from contact with the litter or any other inert spore-bearing substances. Immediate disinfection of all wounds is indicated; but it is better to avoid wounds by the use of special shearing machines.

Dog-bites may cause direct infection of the wounds they produce. The saliva of the dogs may be virulent, especially when they have fed upon the flesh of sheep dead of malignant oedema. Wool, which is deeply introduced into the wound at the moment of biting, may also be infective. The remedies are self-indicative. Dogs given to biting are got rid of or rendered unable to bite; and if, despite these precautions, a bite is found, it is surgically treated.

*Malignant oedema of the pig* is sometimes observed after castration, or after the injection of serum against swine erysipelas. Here also the sole preventive remedy is the disinfection of the site of inoculation. As in ordinary practice it is impossible to carry out such disinfection efficaciously when inoculating against swine erysipelas, a certain percentage of accidents due to malignant oedema must always be reckoned upon.—(*Annales de Médecine Vétérinaire*).

W. R. C.

#### VETERINARY TOXICOLOGY.

The following notes, extracted from the Annual Report for 1917, of Dr. J. F. Tocher, Analyst to the Highland and Agricultural Society of Scotland, are of interest.

The contents of the fourth stomach of a bullock were examined, because the bullock was one of those which became ill suddenly and died within twenty-four hours. The *post-mortem* examination showed intense inflammation of the stomach, but no active poisons were found in the stomach contents which, however, were otherwise abnormal in respect that a large quantity of sand was found to be present. In the absence of other evidence, it was concluded that the bullock had died from some cause associated with the presence of so much foreign and mechanically hurtful material.

*Ewes and dried grains.* Several valuable ewes, nursing big healthy lambs, died within forty-eight hours after having been shifted from a field where they had been grazing for some time, to another field where they were fed with dried grains and cake, in addition to grass. The stomachs and intestines of some of these ewes were examined for arsenic, lead, and alkaloidal poisons, with negative results. The contents of the various stomachs were found to have a distinctly acid re-action, the acid amounting to 2.5 per cent. expressed as lactic acid.

The mixture of dried grains and undecorticated cake used was sent in for analysis, and was found to possess a high degree of acidity, as much as 3.2 per cent of lactic acid was found to be present; other acids being also present in minute quantities. The acidity of the grains was due to the action of lactic fermenting organisms upon the sugars normally present in this particular feeding stuff. Whether the fermentation was promoted by the presence of cotton cake or not is a matter for further investigation.

The effect of such normal bacterial action and resulting acidity in the digestive tract of sheep is a problem for the veterinary physiologist to consider, but it is easy to see that the normal activities of the stomachs of sheep would be suspended, and that death would result simply from impaction, or in other ways. In any case, it was reported that acidity and abnormal bacterial action in the feeding stuffs were considered to be the most probable cause of death; but that the facts should be placed before veterinary experts for their consideration and final judgment.

*Pigs—Phosphorus poisoning.* A member sent in several samples of pigs' stomachs for analysis. Phosphorus was found to be present both in the stomach and bowels of the pigs. Phosphorus is the chief constituent of a well-known rat poison, and phosphor paste left carelessly about a farm steading is the only way phosphorus in any form could be reasonably supposed to reach a piggery.

*Fowls—Spotted Liver.* Fowl poisoning was suspected by a member, who sent in several fowls for examination. No poisonous substances were found in the alimentary canals of these animals.

The liver, however, was found to be in a diseased condition, being riddled by multiplication of the parasite *Coccidium avium*. The disease is popularly known as "spotted liver," and was undoubtedly the cause of death in this case.

*Water.* A sample of water was analysed for poisons, and was found to contain metallic lead. It was therefore the cause of death of two ewes which had been drinking the water.

#### GENERAL REMARKS ON TOXICOLOGY.

The sender of the above notes is of opinion that there is a considerable number of cases of suspected poisoning in animals sent to analysts, where it would be advisable to have the active co-operation of the analyst with a veterinary surgeon.

Periodically, analysts should be invited to attend meetings—social and business—of veterinarians, and to read papers on interesting cases. We as a profession have held ourselves apart from other scientific workers much too long, and we have lost considerably by so doing. It cannot be expected that a toxicologist or analyst can possess the amount of knowledge of pathology of the average veterinary surgeon. The writer has seldom lost an opportunity of getting in touch with analysts on the subject of poisons, water and milk analysis, and the adulteration of foods, and has gained—and given, much help by the active co-operation. Agricultural societies would be well advised to appoint veterinary surgeons to collaborate with their analysts in suspected cases of poisoning in live-stock.

F.R.C.V.S.

#### VICTORIA VETERINARY BENEVOLENT FUND

A quarterly meeting of the Council of the Fund was held at the Registered Offices, 10 Red Lion Square, London, on Thursday, April 10th, when there were present: S. H. Slocock, President, in the chair, Messrs. Banham, Garnett, Gooch, Kelland, McCall, Sumner, Trigger, West, Willett, Wooldridge.

Apologies for absence were received from Messrs. Dawes, Johnstone, McGuinness, McIntosh, Price, and Young.

The Minutes of the previous meeting were taken as read and confirmed.

#### SECRETARY'S REPORT.

The Secretary submitted the following report, which was received and adopted:—

Since the previous quarterly meeting the following donations and new subscriptions have been received:—

##### Donations:—

D. Marshall, Capt.	£2 2 0
G. Garnett	10 6
H. Taylor	10 6
J. Buxton	7 6

##### Collecting Bares

J. Martin	1 0 0
A. Renfrew	10 6
Proceeds of Entertainment arranged by Mr. A. Renfrew, of Broadway	33 4 6
Bolton's Cinema	15 15 0

##### Life Membership Subscriptions:—

G. F. Banham	10 10 0
Norman Brear, Capt.	10 10 0
F. W. Willett	10 10 0

##### New Subscriptions:—

T. Bannatyne, Capt.	£1 1 0
Hugh Begg	10 6
W. J. Dale, Lt.-Col.	10 6
T. J. Davis, Major	1 1 0
W. B. Edwards, Lt.-Col.	5 5 0
J. Ewing Johnstone	1 1 0
E. C. Lloyd	10 6
J. McCunn, Capt.	1 1 0
T. McGuinness	1 1 0
E. B. Reynolds, Major	1 1 0
S. Smith (in memory of his father)	2 2 0
J. H. Thomson, Major	1 1 0
R. C. Trigger	2 2 0
E. Wallace, Capt.	1 1 0
A. J. Williams, Col.	10 6

Mr. A. Renfrew of Broadway, Worcestershire, very kindly undertook to arrange an Entertainment, the proceeds of which were to go to the Fund. Mr. Renfrew has forwarded a cheque for £33 4s. 6d., and the thanks of the Council are due to him for this very practical way of showing his sympathy with the Fund.

The sum of £5,000 received from the Stephenson Bequest has been invested in accordance with instructions, in the purchase of 6% War Loan, 1929-47, and the nominal amount purchased is £5252 9s. 6d.

The Securities registered in the names of the Trustees have now been transferred to the name of the Association. A separate Donations account has been opened at the Bank into which all donations are entered. The Bank has agreed to pay interest on the amounts standing to the credit of this account.

*Investments.* The Hon. Treasurer was authorised to invest part of the balance of Donations, 1918, in the purchase of £200 Consols.

*Life Members.* It was unanimously resolved That the following be elected Life Members of the Fund:—Messrs G. F. Banham, J. Hammond, A. Renfrew and F. W. Willett.

*Relief.* No. 18, Mrs. T. Correspondence was submitted as to the circumstances of this recipient, and it was resolved That the grant of 10/- weekly be discontinued at the end of the present month.

No. 33, Miss W. An application was again submitted from Miss W. and the Secretary reported the result of enquiries made. It was resolved That a grant of 10/- weekly be made, to commence as from April 1st, 1919.

No. 35 Mrs. M. Correspondence was submitted, and the Secretary was instructed to supply a form on which proper application may be made.

No. 44, Mrs. F. An application was submitted, together with replies to enquiries made by the Secretary. It was resolved That in the opinion of the Council there is no immediate necessity for relief in this case.

*Accounts.* Accounts were submitted and approved and ordered for payment.

This concluded the business of the meeting.

#### VICTORIA VETERINARY BENEVOLENT FUND (INCORPORATED)

The first general meeting of the members of the Victoria Veterinary Benevolent Fund since its incorporation was held at the Registered Offices, 10 Red Lion Square, London, W.C., on Thursday, April 10th, 1919, when the following were present:—Mr. S. H. Slocock, (President) in the Chair, Messrs. G. A. Banham, F. W. Garnett, S. H. Gaiger, J. C. Coleman, Col. J. W. Brittlebank, A. Lawson, J. McI. McCall, F. L. Gooch, H. A. MacCormack, H. Sumner, F. G. Samson, E. A. West, J. Willett, G. H. Wooldridge, P. J. L. Kelland, Hon. Sec. and Treasurer, and F. Bullock, Secretary.

*Minutes.* The minutes of the annual meeting held on June 5th, 1918, were taken as read and confirmed.

**Election of President.** On the proposition of Mr. Sumner, seconded by Mr. West, it was unanimously resolved: That Mr. S. H. Slocock be re-elected President for the ensuing year.

Mr. Slocock, in thanking the members for his re-election, said that he was a little diffident at taking the position again. He did so, however, because, having been connected with the Fund a little while, and now that we were entering upon a very much improved position as an incorporated Fund, he would like to remain another year until the work was completed. Then he hoped that some fresh blood might be infused into the post, so that the Fund should have a fresh start and be made into a Fund of which we might all be proud. In the meantime he promised to do his best to promote the interests of the Fund.

**Vice Presidents.** The PRESIDENT explained that under the new constitution the gentlemen who acted as Trustees of the Fund had gone out of office, and he suggested that it would be an honour to the Fund if they would accept the position of Vice-President. They were Mr. F. W. Garnett, Sir Stewart Stockman and Mr. W. F. Barrett. To these he suggested the name of Mr. E. A. West, one of the retiring Vice-Presidents, to whom the Fund owed the very substantial financial assistance received so regularly from the Boltons Cinema.

On being put to the meeting, the Vice-Presidents as named were unanimously elected.

**Hon. Secretary and Treasurer.** On the proposition of Mr. Gooch, seconded by Mr. Banham, it was unanimously resolved: That Mr. P. J. L. Kelland be re-elected Honorary Secretary and Treasurer of the Fund.

Mr. KELLAND in replying, said that he appreciated very much the honour of being elected once again to the position. His feeling in the matter was that he was simply in the hands of the Council. He would very much rather if someone else would take up the work who would be able to do more good for the Fund.

**Auditors.** It was resolved on the proposition of the President, that Messrs. Woodhouse and Wilkinson be elected Auditors of the Fund, at an honorarium of six guineas per annum, and that they be thanked for so generously consenting to act for so nominal a fee.

#### ANNUAL REPORT AND BALANCE SHEET.

The PRESIDENT in submitting the Annual Report and Balance Sheet, said that it was hardly necessary for him to add any words to introduce it. The Fund had now become incorporated, having received a most munificent legacy from the late Dr. Stephenson, and we were now in a position, or would soon be, to do a good work amongst the necessitous and deserving dependents of our professional brethren. He invited discussion or remarks from those present.

Mr. GARNETT suggested that it was now time for the Council to consider whether they could not increase the amount of some of the grants above the ordinary maximum of 10/- per week. He thought that in view of present high prices, this might be done in some of the cases, and of course each case should be considered on its merits.

It was decided that the matter should be referred to the Council.

Mr. WILLETT said that it was evident that the Fund had done very good work. One of the best, to his mind, was that they had done what they could in one or two instances to setting up a boy in life, and helping him to get a good start. The money voted in such cases was, he thought, put to excellent use.

Mr. WEST moved the adoption of the Report, Mr. Banham seconded, and on being put to the meeting it was unanimously carried.

**Stephenson Bequest.** Mr. THATCHER, Solicitor, explained the situation with regard to the residue of the

Stephenson Bequest, and stated that as soon as a decision had been reached with regard to the interpretation of one of the clauses of the will the residue of the estate would be distributed.

**Balance Sheet.** On the proposition of Lt.-Col. Brittlebank, seconded by Mr. Banham, the audited Balance sheet was received and adopted.

#### ELECTION OF COUNCIL.

The President explained that under the Articles, the members must now proceed to elect ten members of the Association to serve on the Council, in addition to those who held office, and were ex-officio members, and those who were members of Council on the nomination of the subscribing Veterinary Medical Societies.

It was resolved That the following members of the Association be elected members of Council as representing the members of the Fund:—Messrs G. A. Banham, L. J. Blenkinsop, S. H. Gaiger, F. L. Gooch, J. Mc. I. McCall, T. S. Price, H. Sumner, R. C. Trigger, G. H. Wooldridge, W. Jackson Young.

#### EXTRAORDINARY GENERAL MEETING.

Immediately following the General Meeting, an Extraordinary General Meeting was held, at which the same members were in attendance.

The PRESIDENT explained that in order to bring the Articles of Association into line with what was intended with regard to the representation of subscribing societies on the Council, it was necessary to make the following alterations. He moved the following resolution:—

1. That the provisions of the Articles of Association be altered by adding the following words to Clause 18, Sub-clause A (1), after the words "in clause 19 hereof" "so long as these Societies and Associations shall continue to contribute to the funds of the Association a sum of not less than two guineas per annum, and in like manner one representative nominated from amongst the Members of the Association by any other Veterinary Medical Society or Association approved by the Council which may contribute a sum of not less than two guineas per annum to the funds of the Association."

2. That Clause 19 of the Articles be altered by the omission of the words "the Department of Agriculture and Technical Instruction for Ireland" in lines 19 and 20 and the insertion of the words "of the Department of Agriculture, Ireland" after the words "Veterinary Officers' Association" in line 21.

On being put to the meeting the motion was carried unanimously.

The SECRETARY announced that in accordance with the notice duly given, a further Extraordinary General Meeting would be held at the registered offices on Thursday, May 1st, at 6.30 p.m., for the purpose of confirming the Special Resolution.

#### THE CENTRAL VETERINARY SOCIETY.

[NATIONAL V.M.A.—SOUTHERN BRANCH.]

A Meeting was held at 10 Red Lion Square, Holborn, W.C. 1, on Thursday, April 3, at 7 p.m., Professor G. H. Wooldridge, President, in the Chair

The following Fellows signed the attendance book:—Prof. J. Macqueen, Messrs. F. W. Chamberlain, H. King, W. S. King, J. W. McIntosh, J. Willett, G. P. Male, W. R. Davis, W. N. Thompson, P. W. Dayer Smith, G. H. Livesey, R. A. Philp, W. F. Widden, and Hugh A. MacCormack, (Hon. Sec.)

Visitors: Capt. J. B. Leitch, A.A.V.C., Capt. C. J. McNulty, Vet. Corps., U.S.A., Lt. A. Freer, Vet. Corps., U.S.A., Capt. Reavy, R.A.V.C., and Prof. J. J. O'Connor.



On the motion of Mr. J. W. McIntosh, seconded by Mr. Willett, the minutes of the last meeting were taken as read.

The Secretary read a postcard from Mr. J. C. Coleman and a letter from Maj.-Gen. Blenkinsop regretting that they would be absent from the meeting, and also a letter from Mr. Leslie Scott, K.C., M.P., as follows:—

#### HORSES.

Dear Sir,—Lord Ribblesdale and I have been talking over the position with a view to united action by those interested, and we should like to have the views of your Organisation on the question of what action, administrative and / or legislative, should be taken.

Our idea is to get from each organisation concrete suggestions, and then have a meeting at the House of Commons and formulate definite proposals. We should particularly like your views on:—1 Licensing of drivers. 2 Sales of old or worn-out horses. 3 Making the employer penally responsible for offences of drivers, carmen, etc., at least in cases of over-loading or over-working. 4 Forage. 5 Condition of roads. 6 Severe punishment for cruelty. 7 Export trade.

Yours faithfully,  
(signed) LESLIE SCOTT.

The SECRETARY stated that he had written to Mr. Leslie Scott and asked him on what day he proposed holding the meeting with Lord Ribblesdale, and that Mr. Leslie Scott had replied that as soon as the date is fixed he will let me know.

The PRESIDENT suggested that as there was a very full Agenda the consideration of the points raised by Mr. Leslie Scott should be deferred to a subsequent meeting.

Mr. W. S. KING said that he had received a similar letter as the President of the Master Farriers' Association of Central London, and that his Association had decided to wait until a week or two later, as a good many veterinarians belonged to the Master Farriers' Association.

Mr. MCINTOSH entirely agreed with the President's view that the matter should be deferred. The points raised would require very full and careful consideration, and he thought it would be impossible to deal with them on that occasion.

On the motion of Mr. Livesey, seconded by Mr. McIntosh, it was decided to put the matter on the Agenda for the next meeting. The Secretary was directed to inform Mr. Leslie Scott that the matter had been sympathetically received by the Society, and that it would be discussed at our next meeting.

#### RESOLUTION BY THE DERBYSHIRE SOCIETY.

The SECRETARY read the following letter:—

Dear Sir,—I have been instructed by the Derbyshire Veterinary Association to inform you that the following resolution was passed at a meeting of the above Association held on Feb. 21st, 1919:—

#### *Veterinary Surgeons and Live Stock Shows.*

"That Veterinary Surgeons refuse to act in a professional capacity at Live Stock Shows where vendors of animal medicines and surgical appliances are allowed to have stands for the purpose of exhibiting or offering such articles for sale, and also that Veterinary Surgeons attending officially at Live Stock Shows shall receive a Fee."—Yours faithfully,

March 10th. (Signed) F. T. PRINCE.

The PRESIDENT remarked that it was of little use passing a resolution which could not be carried out in practice.

On the motion of Prof. J. Macqueen, seconded by Mr. Davis, it was decided that a letter expressing sympathy with the principles of the Derbyshire Association should

be sent to the Secretary of that Association, but regretting that the Central Veterinary Society were unable to see how they could afford them any useful assistance.

The Secretary read the resolution as follows:—

#### MINISTRY OF PUBLIC HEALTH.

Resolution, passed unanimously at a General Meeting of the Members of the North of Ireland V.M.A., held at Belfast, 28th March.

"That this meeting places on record its appreciation of the action of the Government in introducing the Ministry of Health Bill, and its application to Ireland. Further, having regard to the invaluable assistance heretofore rendered by the members of the veterinary profession to the cause of Public Health, and to the important part which they must in the future undertake in the matter, would point out the necessity of having the words "And a member of the Royal Veterinary College" added to clause (d) of sub-section 2; and at least one member of the veterinary profession on the Irish Public Health Consultative Council; and this meeting requests the Government to provide in said Bill for such representation. That copies of this resolution be forwarded to the Prime Minister, Dr. Addison, the Chief Secretary for Ireland, the Attorney-General for Ireland, and the Ulster Members of Parliament."

The PRESIDENT remarked that without the Bill before them it would be difficult to proceed to the consideration of this subject. In case Fellows were not aware of it, he might tell them that the Veterinary Medical Association of Ireland as well as the North of Ireland Veterinary Medical Association, acting quite independently, had come to the conclusion that it was a serious omission from the Public Health Bill as applied to Ireland that no provision was made in that Bill for the inclusion of veterinary surgeons on the staff to advise in matters appertaining to veterinary work, particularly with regard to meat inspection, and contagious diseases which are transmissible from animals to man. Both the Associations mentioned had sent a deputation over from Ireland to the House of Commons, to interview and to interest important Members of the House in that connection, and although the Bill had reached the Report stage, when it was more difficult to get an alteration made, yet the deputations were still hopeful that they might accomplish their object. Sir Edward Carson had received them sympathetically, and Mr. Devlin had informed them that had the proposal been brought to his notice in the Committee stage of the Bill, it was almost certain that the amendment would have been inserted.

Prof. MACQUEEN thought that the letter should be sent to the National Veterinary Association.

The PRESIDENT said that a similar resolution was before the National Association from the V.M.A.I., which he hoped would be discussed at a meeting on the 10th inst.

Mr. MCINTOSH expressed the view that the Central Veterinary Society should take direct action; he thought there was no time to go to the Council, or to other Societies. There was not a minute to lose; they were probably too late now.

After discussion it was decided, on the motion of Mr. Male, seconded by Mr. Willett, that the meeting should pass a resolution expressing agreement with the North of Ireland Veterinary Medical Association, and submit it to that Association so that they could distribute it to influential members to show that they had the support of the Central Veterinary Society.

Resolved: "That the Central Veterinary Society supports fully the action of the North of Ireland Veterinary Medical Association, and of the Veterinary Medical Association of Ireland in their endeavour to secure the appointment of a veterinary surgeon to the Consultative Council of the Ministry of Public Health."

And further, that copies of this resolution be forwarded to the Secretaries of those Associations in order that they may submit it to the various influential members of Parliament showing that they have the earnest support of their English confrères."

#### VICTORIA VETERINARY BENEVOLENT FUND.

The SECRETARY read the notice from the Victoria Benevolent Fund, convening a general meeting also an extraordinary general meeting to pass resolution respecting the altering of Clause 18 in their articles of association.

The PRESIDENT said that most of the Fellows were no doubt aware that the Victoria Benevolent Fund had recently become an Incorporated Limited Society. That step had been taken on account of the bequest of the late Dr. Clement Stephenson, who had left £5,000 to the Fund, and also a portion of his residuary estate. The notice read by the Hon. Sec. was in effect a notice of the changes in the Articles of Association of the Victoria Benevolent Fund. It would be noticed that any other approved Society which contributes not less than two guineas in any year might nominate a member of the Council of the Fund. The words "approved Society" were included in order to prevent societies other than veterinary societies who might contribute to the Fund, exercising the right which they would otherwise have of being represented on the Council. (It was agreed that no steps on the circular were necessary other than receiving it.)

#### ANGLO-FRANCO BELGIAN VETERINARY RELIEF FUND.

The SECRETARY read the circular letter, dated March 1919 from the British Committee of the Anglo-Franco-Belgian Veterinary Relief Fund.

The PRESIDENT said that it would be remembered that when that Fund was first started an appeal was received, but as it was deemed at that time a little premature, inasmuch as the Fund could not be administered, the amount of subscription from the Central Veterinary Society was not decided upon. It had been agreed, he thought, in general association that there should be a donation, and it was referred to the Council for that purpose. He suggested that the matter should be again referred to the Council. It must be remembered, of course, that it was the Council only that could vote funds, but the Council was anxious to receive suggestions from general meeting, if they chose to give any, with regard to the amount to be voted.

The SECRETARY suggested that it would be advisable to defer the matter until later in the evening, in the hope that the Treasurer, who had been detained by an urgent case, would be able to give information as to the state of the funds of the Society. This was agreed to after a short discussion.

The PRESIDENT: Under the heading of "Morbid Specimens," it has been customary to allow members to refer to any specially interesting cases that have come under notice. He understood that Mr. Livesey desired to mention such a case.

#### FATTY FÆCES IN A DOG.

Mr. LIVESSEY said he would like the opinion and help, if possible, of those members who had experience of a similar case to the following, or of members who were pathologists. The subject was a small griffon about 8 months old, and had been suffering for about three weeks from what he believed was called fatty diarrhoea. The only noticeable symptoms were a persistent greasiness of the skin surrounding the anus, and the passage of pultaceous faeces which contained an abnormal quantity of oil. The dog had been losing flesh, in fact had lost half a pound in weight in ten days, which was a good deal for such a small dog. Otherwise he seemed perfectly well; it was lively, ate well and was in good

spirits. The character of the faeces was really rather remarkable. The food seemed to have been pretty well digested, and it came away in a great dollop of pultaceous matter surrounded with a whole lot of what appears to be oil. This, if gathered up and put on a fire, burned like paraffin oil. If put in a cold place and allowed to cool down, it set, and had the appearance of butter. If the dog lay on a clean white sheet it would leave distinct grease marks from a continual oozing; in fact the dog appeared like an animal which one might suppose had been saturated with liquid paraffin such as was given as a laxative, except that of course that would not set when it got cold. But the faeces were passed in a very similar way, and the dog seemed as if it had had an overdose of oil. He believed such conditions arise in a human being from some interference with the proper functioning of the pancreas or the liver, or both, but that dog did not appear to be suffering from any disease of the liver that he could find; and he knew of no means, in the canine race anyhow, of diagnosing any disease of the pancreas. He had changes of diet, but that did not seem to affect the condition very much. He had stopped milk and butter, and oily foods generally, but that only meant an increased loss of weight. Evidently the oily matter that was passed was not from undigested fats; it was evidently more or less derivative, and apparently was being drawn out of the dog's body and excreted by means of the bowel. He had not come across a case like it; he did not understand how to treat it; and he thought that if a pathologist was present he might be able to help.

Mr. WILLETT said he was in the fortunate position of being able to give Mr. Livesey a little information about the matter, and he thought the President could do so too. He (the speaker) had a similar case about four years ago. The dog had distemper, and up to a certain period was doing well, and then, as in Mr. Livesey's case, he had a motion and dropped the oily matter afterwards, and when the motion set it looked as though candle grease had been dropped on it. He had consulted Professor Wooldridge, and they had decided to stop all oily matter. The dog gradually lost weight, although he was lively and ate well, and eventually became very emaciated. The owner finally decided to destroy him, and a post-mortem was made, when it was found that the pancreas either had been absorbed or was absent altogether. That was the only organic symptom they had found.

Mr. LIVESSEY said that the dog in his case had no previous distemper to account for it.

Mr. WILLETT replied that the condition may not have been a sequel to the distemper; it might have been merely a coincidence.

The PRESIDENT remarked that the two cases mentioned corresponded very closely with regard to the symptoms, except perhaps in the primary history which might have been a coincidence rather than a matter of cause and effect. The fat that came with the stools in our case was always with the latter portion of the stool, and when it got cold it became quite firm and solid, almost like the wax of a candle. It had a distinct butyric odour, and one might have supposed that the dog had too much milk or butter, and those foods were discontinued, but the fattiness continued. He had had it examined analytically by Dr. Lander, who came to the conclusion that it was stearin. They suspected the irregularity of pancreatic function, and in that case they had used some pancreatic secretions, but they got no improvement whatever in the case, and it was ultimately decided by the owner not to persist, and they had the advantage of the post-mortem examination, which, as Mr. Willett had pointed out, revealed a complete absence of pancreas. There was no pancreatic structure at all, and all that was found of the mark of the pan-

crease in the crook of the duodenum was a certain amount of loose connective tissue.

Mr. LIVESY asked what was the age of the dog?

The PRESIDENT replied that it was about six months old, a Pom. It had not occurred to him at the time to examine the urine of the dog, which might help in Mr. Livesey's case. Experimental extirpation of the pancreas resulted in melituria, or saccharine diabetes, and some atrophy of the pancreas may be associated with some sugar in the urine.

Mr. LIVESY asked whether it was believed that the pancreas had been present and had been absorbed?

The PRESIDENT said he thought it had probably been atrophied.

Mr. WILLETT, in reply to Mr. Livesey, stated that he thought the absence of the pancreas was not congenital, because the history of the patient showed that he had been perfectly normal to the time when he had distemper.

The PRESIDENT said that with regard to treatment he could only make one suggestion, namely, that if the condition was associated with atrophy of the pancreas, feeding on fresh pancreas, which could be obtained from the local butcher, might answer the purpose.

Capt. McANULTY, U.S.A., said that he had seen similar cases. He had one Boston terrier bitch of his own, a very good dog, which developed the same complaint every summer. He had it for four years. At times the faeces would be of an ordinary brown colour, and at other times they would be intensely black, but always with these small drops of oily substance upon them. The bitch would lose weight continually while the condition lasted: she would lose from three to seven or eight pounds. He had examined the faeces for the eggs of worms, thinking that might be the cause, because he had seen several cases of lost weight from *Tricocephalus depressiusculus*. That is an ordinary small worm which assimilates the hook worm to a certain extent, but inhabits the caecum, and he had seen many dogs killed by that worm. He found no evidence of the eggs of that particular worm in his dog, or dogs with a similar case and he proceeded to treat them with ordinary intestinal antiseptics. At first he tried salol; which did not seem to improve them much. He then tried thymol, and that did not seem to give much benefit. The dogs would never seem to eat anything but raw meat. If they were given raw beef they would always eat it, but they would not drink milk or eat bread and gravy or greens; they would eat raw grass in quantities, but they would not eat cooked greens. He (the speaker) finally hit upon creosote and bismuth, with the essence of pepper as a vehicle. He had used that quite extensively in the States, and he had given the dogs 3 times daily as much as 20 grains to a dose of bismuth subnitrate, and as much as 2½ to 4 minims of creosote, according to the size of the dog. That treatment after about three weeks produced very noticeable results. He did not get any improvement whatever for about two to three weeks; the dogs would continually lose flesh and be off their appetite altogether. The elasticity of their skin would be absolutely absent, and one would think they were going to die. The day after the treatment the temperature would usually be sub-normal. They do not lose their spirits at all; they play as usual. He had never had the opportunity to hold a post-mortem on one, because they all got well. He might add that most of the dogs had the disease at the seashore. He had seen very few in large cities. He practised in Philadelphia, and on the coast of New Jersey, and he had found most cases at the sea shore.

The PRESIDENT remarked that Captain McAnulty might be interested to know that Mr. Livesey practised at a coast town, the case he (Prof. Wooldridge) had mentioned was in London.

#### ELECTION OF FELLOWS. VISITORS.

The CHAIRMAN announced that the result of the ballot showed that both the candidates for Fellowship, Mr. C. H. P. King, M.R.C.V.S., of 155 Lower Kennington Lane, S.E., and Captain Higgins, R.A.V.C., Woolwich, S.E., had been unanimously elected.

Before calling on Mr. Male to read his paper he would like to extend a word of welcome to several visitors who were present: Captain Leitch of the Australian Army Veterinary Service, who would probably be able to be present at several meetings; two Officers of the United States Veterinary Corps, Capt. McAnulty and Lieut. Freer; Professor O'Connor of the Dublin Veterinary College, and Captain Reavy of the R.A.V.C., who was also Secretary to the Irish Branch of the National Veterinary Association. He was sorry the last two visitors were not in attendance earlier, because they might have assisted us with regard to the Resolution which had been passed with regard to the Public Health Bill for Ireland. Capt. Reavy and Prof. O'Connor were in London at the present time to interview members of the House of Commons, and Prof. O'Connor had told him that he thought it would help them also if a similar copy of the Resolution were sent to them for distribution.

Mr. WILLETT said that perhaps Prof. O'Connor could tell the Meeting when the Report stage was likely to be taken.

Prof. O'CONNOR then made a statement as to the action taken by his Association.

On the motion of Mr. Willett, seconded by Mr. Thompson, it was resolved that the Resolution be also forwarded to the Secretary of the V.M.A.I., with a request that he should forward it as soon as possible to the people whom he knew would be likely to give support in the matter.

Capt. REAVY said that his Society much appreciated the assistance given by their fellow-professionals in England.

#### SOME OBSERVATIONS ON EQUINE INFLUENZA.

By Mr. G. P. MALE, M.R.C.V.S.

(The paper appeared last week, p. 383.)

The PRESIDENT suggested that as the hour was rather late it would be advisable to postpone discussion on Mr. Male's paper until the next meeting.

On the motion of Mr. Thompson, seconded by Mr. Willett, it was resolved that the discussion on Mr. Male's paper should be postponed to the next meeting, and that the paper should be printed and circulated to the Fellows of the Society.

#### THE ANGLO-FRANCO-BELGIAN FUND.

The PRESIDENT suggested that as the Treasurer had not arrived, the Meeting should consider what sum they would suggest should be donated to the Anglo-Franco-Belgian Veterinary Relief Fund.

The SECRETARY reminded the members present that the notice, besides requesting a subscription from the Society as such, urged that individual members should subscribe as liberally as possible; and further, that if they had subscribed, they should subscribe again.

On the motion of Prof. Macqueen, seconded by Mr. Male, it was resolved that a sum not exceeding £50 should be suggested to the Council to be subscribed to the Anglo-Franco-Belgian Veterinary Relief Fund.

#### THE MINISTRY OF PUBLIC HEALTH BILL.

The CHAIRMAN then invited Mr. McIntosh to raise the question of the Ministry of Health Bill for England.

Mr. MCINTOSH expressed the opinion that the profession had been backward in pushing their views as to the inclusion of veterinary surgeons in the Consultative Council proposed to be constituted under the Ministry

of Health Bill. He thought the action of the Irish gentlemen who were present was most creditable. He would be inclined to move a resolution similar to that of the Irish Association.

Prof. O'CONNOR said he was quite sure that Mr. Thatcher, the solicitor to the Royal College of Veterinary Surgeons, was quite alive to the situation. As a matter of fact it was Mr. Thatcher who had written to him calling his attention to the matter.

Mr. WILLETT said it would not be wished to do anything outside the Council, if it could only be known that the Council were doing the best they could for the profession; but nothing was known from year to year until the Annual Meeting came round. Then a small report was issued showing what had been done, and in his opinion that did not tend to give that confidence to the Council which was their due, or which should be their due from the profession who elected them.

Mr. MCINTOSH remarked that the right person to represent their interests was the President of the Royal College of Veterinary Surgeons, and if he had been consulted they would be satisfied that their interests were being safeguarded; but that would not prevent the Society as a Society, or the individual members of it, from approaching Members of Parliament or other people of influence with a view to getting their support and interest. The position at the present moment was so obscure that no one seemed to know whether the Council had been consulted or what had been done, and he thought that if there was any further delay the Society would be too late,—if indeed they were not too late already.

After discussion, it was decided that the President should be requested to see the President of the Royal College of Veterinary Surgeons, or to send him a telegram, to the effect that the Society was strongly of opinion that the veterinary profession should be represented at the Ministry of Public Health about to be formed, in order that the interests of the profession and the Public Health should be safeguarded, and that it would respectfully inquire whether the interests could not be forwarded by personal interviews of individual members of the profession with influential Members of Parliament.

#### THE MASTER FARRIERS' BILL.

The CHAIRMAN then invited Mr. W. S. King to make a short statement with regard to the Farriers Bill at present before Parliament. There would be no time for discussion, but he would like to hear Mr. King's statement on the matter.

Mr. W. S. KING said that as Chairman then of perhaps one of the most important branches of the National Master Farriers' Association, representing some eight or nine thousand members, and as a veterinarian, it appeared to him, that the Master Farriers' Bill was—with the exception of Clauses 2 and 3—of an entirely destructive nature. The only constructive measure which he could see was in connection with the creation of new appointments as examiners for the men who formulated the scheme. In Clause 4 there was a term "or engage in business." That meant everybody; small men who kept a shop, the large railway companies who own horses; the owners of race-horses, veterinarians and others. These people would all have to shut up shop if this Bill became law. He had called a committee meeting of the London district: the Bill was discussed, and he (the speaker) had moved the following resolution: "That this Committee emphatically condemned and protested against the proposed new Bill for compulsory registration of farriers" etc., as calculated permanently to throw out of employment Army farriers and shoeing-smiths who have done valuable work on all the fronts during the war, to render the farriers trade monopoly more severe and restricted than that of the most highly

protected profession, to raise the cost of horse-shoeing far above the present rates, and to inflict serious hardships on all horse owners and agriculturists.

The PRESIDENT said that it might be useful if Mr. King could elaborate a little the effect of the Bill upon veterinarians as such.

Mr. W. S. KING said that Clause 4 of the Bill stated that after the passing of the Act no person should be licensed to practise farriery, unless you served an apprenticeship of 5 years and passed an examination. He thought it was obvious that veterinarians who had shops would have to close those shops if the Bill became law, unless they became licentiates of the Worshipful Company of Farriers. It was absurd to expect veterinary surgeons in the midst of their career to go into a forge and learn the business of farriery so as to enable them to keep forges.

Mr. MALE said that it was of course an insult to ask a veterinary surgeon to pass the R.S.S. examination when he had already passed one ten times more difficult.

Mr. W. S. KING said there was one other thing he would like to mention as affecting the veterinarian. There was an addendum to the Bill, as follows:—"It may be pointed out in the interests of the horse-owning public that it is urgently necessary that some legislation should be passed without delay, as there is a very grave risk of the country being flooded with a large number of semi-skilled men when demobilisation takes place, who, if allowed to practise farriery without restraint, will cause incalculable damage to horse-owners."

That was an insult to the veterinarian who had trained the men in the Royal Army Veterinary Corps. If the men are semi-skilled as has been described, why ask for such a Bill; let the public judge for themselves. Although of course, again, it is a destructive measure, and a most unpatriotic one at that, and, further, it is totally inconsistent with the rights of man.

A vote of thanks to Mr. Male for his excellent paper, proposed by Mr. Willett and seconded by Mr. McIntosh, was carried unanimously.

HUGH A. MACCORMACK, Hon. Sec.

#### DERBYSHIRE VETERINARY ASSOCIATION.

The quarterly meeting of the Derbyshire Veterinary Association was held at Derby on April 8. Mr. A. Levie, of Derby (President), occupied the chair, and there were also present: Messrs. McIntyre, Leek; Harrison, Bakewell; G. Howe, Buxton; J. T. Abell, Derby; J. Deville, Uttoxeter; T. H. L. Duckworth, Ashbourne; F. Aulton, Tutbury, and F. T. Prince, Ashbourne, Hon. Sec.

The President said he hoped they would realise the value of the Association by the amount of criticism of their doings which had already been evoked in the veterinary press. Their object was to make themselves felt as an Association, with the one object of raising their professional status. With that would come fuller recognition from public bodies and from private individuals, and incidentally it would lead to an improvement in their finances. They had been criticised by correspondents who had written to the papers, and also editorially. He for one welcomed such criticism. The editor of *The Record*, referring to their agitation for representation in Parliament, said "It is still doubtful whether a veterinarian in Parliament could exercise more influence upon the Government than can be done by the Parliament of our own profession." But what had the Parliament of the profession done? Absolutely nothing; and there was no indication of their doing anything. "One voice in 700 speaking for one of the

smallest professions in the country would have an uphill task, and the chances of success would depend upon the quality of the man," said *The Record*. He thought that was insulting their intelligence, because if they put a veterinary surgeon into Parliament they would choose a man in whom they had every confidence. Then the editor continued, Any member of the House with a genuine interest in our affairs might do really as much good as one of our profession, though a professional man's knowledge would render a veterinarian preferable if he was suitable in other respects. He (the speaker) believed he was justified in saying that they could not have the personal interest in the profession shown by anyone who was not a member of it, in the same degree as a veterinary surgeon himself would show it. Therefore with one veterinarian in the House they might expect better results than if they relied on the help of their local members. A correspondent in *The Record* who signed himself "Worried," criticised the scale of fees which the Derbyshire Association had fixed, and raised the question of co-operation. Other associations had fixed different fees, and the correspondent in question suggested that want of co-operation between the various associations would be destructive of effort. So far as Derbyshire were concerned they would welcome co-operation, and it certainly existed between their individual members.

With regard to quack medicines at shows, he recalled the fact that they had passed a resolution that they would not attend shows if there were on the ground stands for exhibiting any quack preparations, and one of their critics in the veterinary press was of the opinion that societies would sooner give up veterinary surgeons than the stands of the quack remedy dealers, which were generally very remunerative. "We are quite prepared for them to do that," said the president; "we are not dependent on agricultural shows, and we often attend them at inconvenience and loss to ourselves. That is our reply to that line of argument." So long as the profession was united on that point, he was convinced that agricultural societies would sooner or later come to their way of thinking. He did not want his brother practitioners outside Derbyshire to consider him dogmatic or dictatorial, but he earnestly appealed to them to consider the dignity of the profession and the best means of maintaining it.

It transpired that one or two members had agreed to act for their local shows before the resolution referred to was passed, and it was understood that they might do so this year in the circumstances, but that in future the terms of the resolution shall be rigidly adhered to.

*The Price of Petrol.* The Hon. Sec. reported that he had approached the Anglo-American Oil Company on the question of petrol with a view to veterinary surgeons being supplied on the same terms as other favoured people. He mentioned that some veterinary surgeons already were supplied at the cheaper rate. The company had replied to the effect that it was impossible to supply veterinary surgeons at a cheap rate, and asking for the names of those who were at present being so favoured. It was decided not to furnish the information asked for.

*Insurance Fees.* The President said the next item on the agenda was "Blacklegs of our profession," and in using that phrase what he and the Hon. Sec. had in mind was whether any other practitioner was undertaking work for the insurance companies which members of the Derbyshire Association had refused because the minimum fee was not offered. He invited members present to relate their experiences.

Mr. MARRISON said he had returned several cases to insurance companies, and in three instances the companies had afterwards agreed to pay the minimum fee of 10/6. Another society wrote to say they were con-

sidering the question. He found he was quite as well, if not better off, doing fewer cases at a good fee than a greater number at a poor fee.

Mr. DUCKWORTH produced a letter from the Co-operative Insurance Society who at first refused to pay the 10/6, but subsequently they did so on being told that he would not examine the animal for less, and that no one else in Derbyshire would do so. He agreed with Mr. MARRISON, that although it might mean fewer examinations it would be better for the veterinary surgeon in the long run.

Mr. AULTON said he refused a fee of 4/- from the Imperial, and he afterwards ascertained that the animal in question was insured without being examined.

The PRESIDENT: Let them take the risk if they won't pay the minimum fee. When they have been let in a few times they will fall into line with us. We can afford to refuse a fee of 4/-, which is much too low to offer a professional man who can earn more in other ways. I think we may congratulate ourselves upon the result of our efforts thus far. We expected to lose some business, but much of it will come back, and for what we sacrifice for good we shall be more than compensated in the increased fees. The insurance companies are themselves awakening to the justice of our claim, and they are meeting to discuss a new scale of fees to offer to the veterinary profession.

The Hon. Sec. mentioned that his firm had passed work on to other veterinary surgeons when it lay outside their own district.

The PRESIDENT thought that was a very good spirit to show, and if it only became general it would be a source of strength to them as an association. It manifested a sense of brotherhood and comradeship which their association was out to foster, and he commended the action of Messrs. Duckworth and Prince to veterinary surgeons as a whole.

*Veterinary co operation and Etiquette.* Mr. HOWE spoke on the subject of co-operation among veterinary surgeons and especially among veterinary societies. He thought there was room for a great deal of improvement. He was afraid the powers that be had not looked after the interests of the practitioners as they ought to have done, and especially country practitioners. Unless they bound themselves together and acted as one man their profession would be left behind in this period of reconstruction. Reform was necessary in many directions. To improve their professional status, and above all to secure a uniform and adequate fee from insurance companies and from public bodies generally, they must present a united front. Derbyshire had made a start, and they had come in for a certain amount of criticism, but it seemed a healthy kind of criticism and would, in his opinion, do more good than harm. He hoped that as a result of the lead which this Association was giving, lasting good would be accomplished for the profession. They wanted nothing for themselves that they were not prepared to see others enjoy, but to attain their object unanimity was essential. With regard to the stand they were taking against low insurance fees, it was evident that good was already resulting. They might expect some of the minor companies to refuse to pay 10/6 for an examination, but such companies they could afford to ignore if the larger companies come into line, which there was every likelihood of their doing.

The PRESIDENT, apropos of this question, referred to a report in *The Record* of the ethical code laid down by the Cumberland Association. He said there was a well understood etiquette in the veterinary profession which he believed most men were anxious to observe.

Mr. ABELL thought that membership of a society like this was bound to create a feeling of good fellowship. No man who had the welfare of his profession at heart would care to do that which was contrary to its best

interests. He agreed with the comments made by the President, and said he believed they would further the ideas of co-operation by becoming affiliated with the National Veterinary Association.

The PRESIDENT said there were various ways in which they might co-operate one with another. They could help each other's clients if they happened to be in their district, without, of course, taking the fee that would belong to the client's regular veterinary surgeon. They might also communicate with each other so far as examinations for insurance companies were concerned, so as to make sure that there was no attempt on the part of any company to play one veterinary surgeon off against another. More important still, they could warn each other of clients who never paid their accounts, and so prevent bad debts being incurred. He had not a word to say against the really poor man who could not pay, and he (the speaker) did what no doubt many other practitioners did—attend some sick animals for which he knew he never would be paid. If an animal was in pain, any veterinary surgeon would do his best to relieve it, and in the case of a very poor man the fee would be a secondary consideration. That was not the case he had in mind. They knew only too well that some people who could well afford to pay never did so, and when they had run up an account with one veterinary surgeon they transferred their affections to another. That was where they could do each other a good turn by giving a timely warning. Such people ought to be black-listed, and a friendly understanding among local practitioners should have the desired effect.

*The Council Elections.* The PRESIDENT referred to the approaching election of members of the Council of the Royal College of Veterinary Surgeons. He had hoped that they would have had a nomination of their own, but he was advised that it was too late this year. Voting papers had to be sent abroad and they consequently had to be printed a long time ahead. He proceeded to put in a plea for Mr. Hill, of Llanelli, who was a candidate for a seat on the Council, and who, in his opinion, most nearly approximated to their own progressive views. He did not desire to interfere with the freedom of action of any member in the matter of voting, but he strongly recommended them to give a vote to Mr. Hill.

After some little discussion, in which it was evident that those present shared the President's views, the following resolution was proposed by Mr. Duckworth, seconded by Mr. Abell, and carried unanimously:—

"That the members of the Derbyshire Veterinary Association, having read Mr. Hill's election address in which he proclaims his views on matters of interest to the profession, hereby consider him a fit and proper person to be a member of the Council of the Royal College of Veterinary Surgeons, and pledge themselves to do all in their power to secure his return.

The members had tea together before separating, and decided that the next quarterly meeting should be held at Buxton.

F. T. PRINCE, Hon. Sec.

#### Veterinary work in South Africa.

"In the *Rand Daily Mail* of March 18 we quoted a portion of the latest report of the Secretary for Agriculture, Mr. F. B. Smith, showing that on an Australian or Canadian Basis, South Africa ought to have 400 veterinary surgeons, whereas it only possesses 94, of whom 58 are in the Government service. The livestock in the Union is valued at £100,000,000, an effort is being made to build up an export trade in meat, and later on our breeders may possibly desire to dispose of surplus animals overseas. But our existing flocks and herds are endangered, and the future of the whole industry is

menaced, by the large amount of disease still in the country. Mr. C. E. Gray, the Principal Veterinary Officer, admits in his report for the twelve months ended March 31,\* that different scourges have given a great deal of trouble. Take anthrax, for instance. The Senior Veterinary Officer in the Cape notified 221 outbreaks in the year, and added: "I am confident that the returns do not represent one quarter of the number of outbreaks which occur in this Province." Mr. Gray confesses that the remark applies equally to the Transvaal. In the Transkei and Natal the number of outbreaks showed an increase. In Free State the disease was described as "formidable," whilst Mr. Gray remarked: "What is still more unsatisfactory; in one particular outbreak—in Boshof—the type of disease was so virulent that neither the Institute Pasteur vaccine, nor the local laboratory vaccine had any immediate inhibitory effect on the progress of the disease, and repeated inoculations were necessary before the progress of the disease was stayed." Mr. Gray admits that unless better results are obtained in fighting the scourge, "it is more than likely that other countries will place an embargo upon the introduction of animal products from South Africa, which will react detrimentally upon the prosperity of the farmer, as the country is now reaching a stage in its development when local markets are unable to absorb the output, and openings have to be sought overseas for disposing of our produce." These statements were made nearly a year ago. It is asserted upon high authority that there is to-day more anthrax in the country than ever there has been, and that owing to the evasion of the regulations and the small number of veterinary surgeons available there seems but small prospect of the pest being checked in the immediate future.

Mr. Gray says that the Veterinary Division "has been severely handicapped by the reduction of personnel due to various causes." Clearly, then, South Africa needs more veterinary surgeons, both in the service of the Government and in private practice. Whether it will be able to obtain them is extremely doubtful. A recent letter from a young South African studying veterinary science in England throws some light on the question. Writing on a suggestion that he should make a start in South Africa, he says

"I would not think of accepting the salary they (the Union authorities) offer, and further it is a service in which there are no prospects. Neither would I do private practice in a country where the veterinary profession has no status. I understand that chemists and chartered accountants are protected by law in South Africa, and it is the only country I know of where our profession is still open to quacks. . . . The name of South Africa is mud at the Royal College of Veterinary Surgeons, and I think the only men they are likely to get are the drifters who are taking seven years to qualify."

These complaints disclose the real situation. For years an effort has been made to secure a Veterinary Council and the proper registration of veterinary surgeons. A Draft Act is in existence. The veterinary surgeons desire it. The farmers want it. But year after year the Government allows the damaging and discouraging conditions we have outlined to drag on. Good private practitioners will not come to South Africa to compete with quacks. The best men, not tied down by pension prospects, leave the service of the Government, and others cannot be obtained at the wretched salaries offered. There are men in the Division who have not received an increase in salary for more than fifteen years. They have struggled on year after year hoping for better conditions, but as nothing is ever done they are "fed up" with the whole position.

\* A copy of this report is to hand; we hope to quote from it in an early issue.



Owing to the under-staffing of the Division some of them have had to do routine work in which their highest qualifications are absolutely wasted. Mr. F. B. Smith suggests that a Veterinary College should be established in South Africa, so that we can train our own men. There is much to be said in favour of the proposal, because the diseases in South Africa are often peculiar to the sub-continent. But until the profession receives a proper status, and the Government service is made attractive, we doubt whether a college would obtain many students; and if it did we feel certain that the best of them would soon leave for lands in which the profession is not muddled and ruined."—*Rand Daily Mail*.

#### STATUS OF THE VETERINARY PROFESSION.

Messrs. Willett and McIntosh have taken note of "Dagonet's" expositions on veterinary politics, but "Watchman" on the "status of the veterinary profession" seems to have gone scot-free, whilst his production is ever so much a bigger knock down to the profession than that of "Dagonet."

"Watchman" mentions the word "gentleman." Now one outstanding qualification of a gentleman is courage, and neither "Dagonet" nor "Watchman" seem to have much of it when they have to hide behind a *nom-de-plume*.

"Watchman's" assertion that society holds the veterinary profession in the greatest disdain compels me to ask (1) Has he been successful in his profession? and (2) Has he had the guts to gain the confidence and friendship of the stock owners, large and small, in his neighbourhood, who are an important body. I have an idea he has not; and that he feels a bit "out of it," and not on good terms with his own self.

"Watchman" asks "how many public schoolboys ever dream of becoming veterinary surgeons." I would put it another way, namely:—How many public schoolboys have the courage to enter the profession? or having entered it, have the guts to become successful veterinary surgeons? Very few indeed!

A gentleman recently consulted me about his son, aged 17, who, he asserted, would like to enter our profession. The lad has been brought up in the town, and has no knowledge of horses, cattle, sheep, pigs, etc.—he is fond of dogs and cats. I advised the father strongly to put him to some other calling, as I had seen so many miserable failures where young men entering the profession had no practical knowledge of live stock; and that the only way to know live stock was to grow up with them—in short, that if he did not realise live stock in health he would never know them in disease.

"Watchman's" observations about practising the profession from purely philanthropic motives I look on as "bunkum." Does the doctor, the parson, the barrister practice from philanthropic motives? I trow not. There must be a business side to every profession, and I am truly sorry for the professional man without business instinct, for as the song says, "L.s.d., that is the stuff to bring you joy," etc., and incidentally helps you in society, although money, up to now, has never made a gentleman.

"Watchman" is right when he says "people are judged by the company they keep," whilst at the same time we have to do with so many different specimens of humanity that a tremendous amount of tact is essential.

"Watchman" is against anything of the trades union in our profession. In conclusion, I would remind him that there exists a strong trades union in the medical profession.—Yours etc.,

The Gables, Reigate.

April 28th.

CHAS. A. SQUAIR.

#### VETERINARY POLITICS.

Sir,—I, in my turn have read "with some amusement" the letters of Messrs Willett and McIntosh in your current issue. Mr. McIntosh concludes by opining that unless I am prepared to own to my utterances, I "had better remain in obscurity for ever." Let me assure him, in the first place, that I am not going to own to my utterances, and in the second, that the best way of drawing me from obscurity is for men to write in answer to the aforesaid utterances, as three men have already done to my first letter.

If Mr. J. Willett has read my second letter, he perhaps now understands my attitude upon insurance fees better than when he wrote, so I need not dwell on that point. A more important one, upon which I must contradict Mr. Willett flatly, is his statement that I joined issue with the Central Society *more especially* with regard to District Representation. Now I did oppose District Representation, and I do still; but I *much* "more especially" attacked the strike policy suggested at the Central meeting, which I expressly said was more dangerous than District Representation. I notice that Mr. Willett is quite silent upon this strike policy; and so is Mr. McIntosh, who himself suggested it at the Central meeting.

Both these consciously well-meaning reformers seem much more anxious to criticise their critic than to defend whatever policies they may have advanced. One of these opened a Society's discussion and suggested a veterinary strike, and he would be better employed in defending or withdrawing that suggestion than in asking for my name with an apparent view to a personal attack. The other is a candidate for Council who has not yet issued an election address; and surely one of his "efforts to stir up the lethargy in which the profession has sunk" ought to take the form of informing us what policy he intends to follow upon the Council, if we let him get there. Let him expound his views on this strike question, which really formed the most important part of my letter, and let Mr. McIntosh do the same, and let both likewise tell us fully what they think of the closely related question of whether our profession could be "done without." By so doing they might do much more good than I could by revealing my identity, or than they have done by the letters they have already written.—Yours truly,

April 28th.

"DAGONET"

#### ARMY VETERINARY SERVICE

War Office, April 30.

##### AMENDMENTS TO MENTIONS IN DESPATCHES.

The undermentioned are now correctly described:—

EGYPT.

\* \* \* \* \*  
Gazette dated Jan. 22, 1919 (No. 31138): Kendall, Maj. (T. Lt.-Col.) J., O.B.E. Aust. A.V.C.

Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, April 23.

##### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Maj. A. E. Clarke, Res. of Off., relinquishes actg. rank of Lt.-Col. on ceasing to hold the appt. of A.D.V.S. (Jan. 12).

Majs. to be actg. Lt.-Cols. while holding the appt. of A.D.V.S.:—H. Greenfield (Jan. 12); A. E. Clarke, Res. of Off. (Feb. 15); (Bt. Lt.-Col.) W. A. Wood (March 5).

Capt. E. Sewell, M.C., Spec. Res., to be actg. Maj. while holding the appt. of D.A.D.V.S. (Jan. 13).

April 24.  
Temp. Capt. G. Sutton, F.R.C.V.S., relinquishes the actg. rank of Maj. (March 25).

April 25.  
The follg. relinquish the actg. rank of Maj.: Capt. H. E. Powell, D.S.O., T.F., on ceasing to hold the appt. of D.A.D.V.S. (Dec. 25); Temp. Capt. W. P. B. Beal (Mar. 20).

Capt. R. E. Beilby, T.F., to be actg. Maj. while holding the appt. of D.A.D.V.S. (Dec. 25).

April 26.  
Temp. Lt. (now temp. Capt.) J. Bell to be actg. Maj. from Aug. 9 to Oct. 7, 1917.

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

April 28.  
Capt. (actg. Maj.) H. McVean relinquishes actg. rank of Maj. on ceasing to be empld. (March 18).

April 29.  
Temp. Lts. to be temp. Capts.: H. F. Vulliamy (Mar. 7); J. H. McManus (Mar. 8); H. M. Roemmele (Mar. 12).

D.V.S. Temp. Maj. (actg. Lt.-Col.) C. E. Edgett, D.S.O., Can. A.V.C., and to be actg. Col. while so empld. on relinquishing the appt. of D.A.D. of V.S., and ceasing to be graded for purposes of pay under C.P., Cl. 16. (April 14, 1918).

The notifications in the *Gazette* of June 8, 1918, and Nov. 2, 1918, in so far as they refer to temp. Maj. (actg. Lt.-Col.) C. E. Edgett, D.S.O., Can. A.V.C., are cancelled.

### Personal.

KEIR—KELSO. At the Grand Hotel, Glasgow, on the 19th inst., by the Rev. David Keir, M.A. (uncle of the bridegroom), Capt. David Keir, M.C., R.A.V.C., eldest son of Mr. and Mrs. A. Keir, Potterhill, Paisley, to Jessie, second daughter of Mr. and Mrs. Thomas Kelso, Rosemount, Potterhill, Paisley.

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Animals											
GR. BRITAIN.													
Week ended April 26	5		3	3					103	182	5	48	19
Corresponding week in	1918		4	4			1	1	98	129		40	8
	1917		9	10					46	92	6	83	59
	1916		14	14			2	2	36	69	4	116	326
Total for 17 weeks, 1919	55	2	64	87	19	106	5	28	2603	5158	207	422	149
Corresponding period in	1918		113	128			13	36	2229	4303	222	323	114
	1917		229	263			10	19	1200	2523	348	840	244
	1916		221	260	1	24	21	62	1162	2824	165	1523	4691

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, April 29, 1919

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND. Week ended April 19	...	...	...	...	...	...	...	...	Outbreaks	10	1	1
Corresponding	1918	...	...	...	...	...	...	...	1	4	...	...
Week in	1917	...	...	...	...	...	...	...	...	10	14	189
1916	...	...	...	...	...	...	...	...	...	6	6	58
Total for 17 weeks, 1919	...	...	...	...	...	...	1	1	54	135	15	48
Corresponding	1918	...	1	1	...	...	...	...	55	148	7	27
period in	1917	...	2	2	...	...	1	1	16	184	91	661
1916	...	...	1	5	...	...	...	...	28	156	91	481

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, April 21, 1919

IRELAND.									Outbreaks			
Week ended April 26	...	...	...	...	...	...	...	...	2	4	1	9
Corresponding	1918	...	...	...	...	...	...	...	2	3	...	...
Week in	1917	...	...	...	...	...	...	...	...	9	17	81
1916	...	...	...	...	...	...	...	...	...	4	9	49
Total for 17 weeks, 1919	...	...	...	...	...	...	1	1	56	139	16	57
Corresponding	1918	...	1	1	...	...	...	...	57	151	7	27
period in	1917	...	2	2	...	...	1	1	15	193	102	742
1916	...	...	1	5	...	...	...	...	28	200	100	530

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, April 28, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1609.

MAY 10, 1919.

VOL. XXXI.

## RECORDS.

It is now practically six months since the cessation of hostilities; but veterinary surgeons in general seem hardly inclined to resume their pre-war professional interests. There is distinct liveliness in veterinary politics, and much activity in agitating for increased fees; but little disposition to scientific discussion or the recording of experience is evident. This is regrettable; for the advancement of professional knowledge is even more important to us than either professional politics or professional remuneration.

The war brought much new experience in both civil and military practice, but not much of it has been recorded. What has appeared has chiefly related to surgery and the more important specific diseases. Some knowledge has been gained regarding the former subject; but it may be said broadly that the war has not brought any great advances with regard to specific diseases in general, though it has made many individual men more expert in dealing with them. Outside these subjects, there is a wide and varied experience which in its sum is of even greater importance to the profession, and concerning which little has yet been written.

In civil practice, two wide fields in which many observant clinicians have learnt a great deal during the war may be mentioned. One is the abundant work upon sporadic affections in animals for which veterinary aid was formerly hardly ever sought unless in the case of an epizootic. Much of this work will probably remain to us, for a considerable time at least; but text-books teach us little of its details, and the men who have learned them in practice know much that could beneficially be communicated.

The second is the great amount of animal disease, much of it very serious, which arose from the bad or insufficient food of war time. In some parts of the Kingdom, including London, many practitioners saw more of the pathological effects of malnutrition than in their whole lives. Whether or not similar conditions ever again arise in England, both practical medicine and dietetics would profit by some records of them.

## A CORRECTION.

In the report of meeting of Derbyshire Society, printed last week, the president, quoting from our issue of Mar. 8th, is reported to have said (p. 401, first col., eighth line) "Any member . . . might do *really* as much good" etc. In the original (second col., sixth line) the reading is "might do *nearly* as much," etc. Phonetically the words are much alike, and it is probably a reporter's error: but there is a distinct difference in the meaning.

## NOTES ON NON-PROFESSIONAL INSPECTORS.

Comments were made at the meeting of the Central Veterinary Society (see V.R. March 29, page 345) concerning the laymen employed by the Board of Agriculture and Fisheries, and with the object of raising a discussion on these inspectors the following notes were penned.

In the first place the method of their appointment calls for criticism. In the interim report of the Departmental Committee that was appointed by the Board to enquire into Swine Fever, the following statements occur, made by Mr. F. A. Fulford, Superintending Inspector of the Animals division of the Board.

"The country is divided into districts, of which there are 17. In charge of every district there is a district inspector, and under these district inspectors we have at the present time (June 1910) 22 assistant inspectors. All of these are what, for convenience, we call lay inspectors, as distinct from the inspectors, who are veterinary inspectors and deal with the professional work of diagnosis."

"Some districts will have two or more assistants in them, and at times, if the work permits of it, the district inspector would work alone. It would depend upon where the pressure of work is greatest. The lay inspectors do the administrative work after the professional officers have told us the disease is there."

"The Board select men who have a general knowledge of the world, who have had experience either in estate offices, or some of them Colonial experience. I myself began as a civil engineer. I was out in the colonies and I have had experience of farming all my life practically. The assistant inspector comes in on trial, I may say, to see how he shapes. Before two years are up he has, if his services are approved by the Board, to go up for a qualifying examination."

"It is a patronage appointment. Reports are made by the officers under whom he has served during his probationary period. The examination is on the Acts and Orders of the Board, and spelling, writing, arithmetic and composition."

The witness was asked, Do you find that that is a satisfactory method of appointment? and the answer given was:—

"I think it has been found to be the very best system possible, because it does not follow that the man with qualifications which would best satisfy the civil service examiners would be best for our work; he might not possess the aptitude for our work, and by this means the Board have an opportunity really of picking the best men for the job. The proportion of failures has been very slight, two or three."

Asked concerning criticism directed against the lay inspectors by agriculturists, the answer was:—

"Yes, I am aware that since the days of our first beginning criticism has been levelled against the

inspectors, on the ground that they did not possess qualifications for the work. The criticism is a very old one now; it started in the days when I first began in 1890, that most of us were ex-officers of either the Army or Navy, and that we did not know one end of a cow from the other. On one occasion that criticism was levelled against myself, who had not the honour of having served in either the Army or Navy. I think it has been very often repeated by people who had never met an inspector of the Board, and certainly did not know the nature of their work, or how they did it."

"A candidate for appointment has to fill in a form, stating his age, giving a brief account of his career, his education at preparatory and other schools, and what he has done since leaving school or college. He has to forward testimonials from people with whom, or under whom he has worked, and give references as to general character. The salary of a lay inspector is £150 per year rising to £250 by £10 a year increment."

"The examination at the expiration, or just before the expiration of the two years' probation came into operation in 1904; but before that, no inspector was promoted to the permanent staff of the Board until he had satisfied the Civil Service Commissioners. One objection to that was that some of these men had been in the service of the Board for a considerable number of years and had thoroughly acquainted themselves with the work, and had done the work to our satisfaction; but still, after the lapse of time they naturally found a difficulty in preparing for and passing the examination—they had got out of the way of examinations—and it was found very hard, after all these years of service, to have to get rid of a man who in every possible way did the work to our satisfaction, but could not satisfy the examiners. Therefore it was thought, it would be better that these men, before they had spent the best years of their life in our service, should know that, provided their work subsequently was satisfactory and their health good, and so forth, they should be able to take up the appointment of permanent officers if it was offered to them."

"The criticism as to the suitability of our officers has been dealt with on certainly two occasions by the Presidents of the Board. Mr. Long in 1896 answered that criticism, and in 1901 Mr. Hanbury did the same, and both repelled the charges in most emphatic language."

Referring to the Veterinary staff, the same witness furnished the following information.

"There is one superintending Veterinary Inspector and 10 veterinary inspectors who are permanent officers of the Board, and 14 assistant veterinary inspectors who are temporary officers."

"In addition to these officers whose whole time is employed in the service of the Board, we have in England and Wales 89 local veterinary officers, and in Scotland six, making a total of 95 who are employed by the Board in dealing with reports of swine fever when one of our own officers is not available."

The writer considered it advisable to give the above extracts, as, so far as is known, no change has been made in the method of appointing lay-inspectors since 1910.

It is seen that these inspectors hold no qualifications that justify their retention to do duty in connection with the contagious diseases. Some of them are tactful, and cloak their ignorance remarkably well, while others presume to pose as experts on all matters concerning the scheduled diseases. They are truly parasitic, and are dependent on the

art of what has been aptly termed "brain sucking," before they can furnish a report.

It has been said by lay officials that veterinary surgeons cannot be administrators, and that administration is the sole property of the layman. This is grossly absurd, as in some of the best administered towns in Great Britain the whole of the duties connected with the Diseases of Animals Acts and Orders made thereunder is carried out by whole time veterinary officials. It must also be remembered that in Australia a V.S. was appointed a few years ago to be administrator of the Northern Territory, and that in South Africa a V.S. was chosen to fill the office of Director of Agriculture. And a V.S. is at present a member of the Board of Railway Commissioners for Canada.

During the recent war the veterinary staff that was retained wisely by the Board has been called upon to carry out a vast amount of work that was formerly delegated to laymen. This work has been done efficiently and economically, and the arrangement has been very favourably commented upon by stock-owners. There is nothing connected with administration that a veterinary inspector cannot do better than a lay official.

During the past there has unfortunately been a considerable amount of overlapping and trespassing going on between veterinary and "administrative" work. In tracing outbreaks of swine fever, for example, it is not uncommon to find that the lay official reports on the health of the in-contact swine. In work connected with diseases of mankind, the sanitary inspector (who has to submit to stringent tests before appointment) is not permitted to encroach on the doctor's preserve.

Much could be written in a very hostile strain against non-professional inspectors, and a catalogue of the stupid things said and done by them could be furnished, but, abuse has its disadvantages, and should be withheld.

Rather let us try and persuade the Board and Stock-owners that these men are superfluous, and that it is not in the best interests of the State that they should be retained. Agricultural societies and Farmers' Unions throughout the country should be put in possession of our grievances; and resolutions concerning the abolition of lay inspectors should be passed and forwarded to M.P. who could discuss the subject in Parliament.

In March, a discussion took place in the House of Commons on the reconstruction of the Board, and it is satisfactory to learn that the Board is now raised to the position of a "first class" department. The writer would be very much obliged for an explanation as to this term as applied to Government departments.

It is hoped that the president will in future be able to lay the demands of the agricultural industry before the Cabinet, and that the Board will receive more financial help from the Treasury.

It is not clear that the officials will be better recompensed.

The Board is to be reconstructed on the lines of the Irish Department of Agriculture, and if this be

properly done, we shall see the end of lay inspectors, because as far as the writer knows—there are no lay officials employed in connection with “dealing with” outbreaks of contagious diseases in Ireland. The subject here raised is one worthy of a full discussion at meetings of Veterinary Associations.

“VIS UNITA FORTIOR.”

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### OVARIAN HÆMORRHAGE.

E. Jost, in an article in the *Archiv für wissenschaftliche Tierheilkunde*, deals with the hæmorrhages and discharges into the peritoneal cavity which occur after ablation of the corpora lutea, rupture of ovarian cysts, etc. The diagnosis of ovarian hæmorrhage is generally not difficult, and is based upon the establishment of the fact that rupture has taken place, and upon the presence of anæmia. In the differential diagnosis the possibility of acute indigestion may arise; but the rapid augmentation of the heart-beats with consecutive diminution of the temperature and marked anæmia should lead the clinician in the right direction. There are various other morbid conditions or consequences of operations upon the ovaries, the chief of which are as follows:—

Young and sensitive animals show loss of appetite, colic, uneasiness, arching of the back, and straining. A similar condition is shown by animals which have strained hard during the operation, cows affected with inflammatory processes of the vagina and rectum, and animals affected with diarrhoea, intestinal catarrh, and John's disease. Cows affected with pyometra not rarely, in consequence of the ablation of a persistent corpus luteum, suffer from tympanitis and colic for some hours. In slight hæmorrhage which ceases spontaneously there is loss of appetite and suspension of rumination, with transient tympanitis. The rupture of ovarian abscesses is followed by grave symptoms of peritonitis, in which case, when anæmia is absent and fever is present, the diagnosis of hæmorrhage may be excluded. In perforation of the rectum produced during the operation, a diagnostic error is only possible in the first hours.

In considering the etiology of ovarian hæmorrhage, the author attaches importance to sanguineous cysts (hæmorrhages into follicles dilated into the form of cysts,) tumours of the ovary (especially angiomas,) tuberculous lesions of the ovary, hæmophilia, and rupture of the ovary. The prognosis is always guarded when the hæmorrhage reaches such a degree that anæmic pallor, a rate of 90 per minute or more in the heart-beats, loss of appetite, suspension of rumination, great diminution in milk production, and general debility are observed. Trembling and clonic spasms render the prognosis absolutely unfavourable. Spontaneous recovery is more easy in young animals; while it is difficult in those advanced in age, especially if the hæmorrhage coincides with the period of heat.

In treatment, absolute quiet and attentive surveillance, with a view to summoning veterinary

help should the condition become worse, are important. As medicaments, caffeine, ergotin, gelatine, and ergot of rye are advised.

The owner should always be warned of the danger of hæmorrhage in consequence of operations upon the ovary; the principal symptoms of an internal hæmorrhage should be explained to him, and careful watching of the animal be advised. Animals which present ovarian tumours or malformations should be excluded from operation. The operator should take care not to rupture the ovary. Cysts should be emptied by puncture with the trocar, which is not dangerous.

It is necessary to avoid extreme straining, so as not to run the risk of the rupture of an oviduct. By systematic compression through the vagina and rectum after the operation, much hæmorrhage may be prevented.—(*La Clinica Veterinaria*).

W.R.C.

#### ANNUAL REPORT FOR THE VETERINARY DIVISION, DEPT. OF AGRIC. UNION OF SOUTH AFRICA FOR THE YEAR ENDING 31ST MARCH, 1918. [Abridged.]

##### EAST COAST FEVER.

This disease continues to be prevalent in some parts of the Union, especially in the Transkei and in Natal. In the Cape, after an interval of over twelve months, the disease again made its appearance in the district of King William's Town. The source of infection is undetermined, but as many illicit movements of cattle from the Transkeian Native Territories undoubtedly take place it seems reasonable to assume that it is to this cause the outbreak may be attributed. The area is now under rigid supervision and compulsory dipping is being enforced.

In the Transvaal, East Coast Fever still retains a footing in five districts. Pietersburg district is in the worst position numerically, there are 21 farms which must be looked upon as actually infected, upon five of which the disease made its appearance during the current year. The greater part of the district is now under compulsory dipping, but a good deal of supervision is necessary to ensure satisfactory results, owing to the large native population.

In the Zoutpansberg there have been nine fresh outbreaks; last year there was only one. One outbreak involving two farms was the most serious, the mortality within the year amounting up to nearly six hundred, owing to the fact that the farm was undoubtedly badly infected before the disease was discovered and no dipping tank was immediately available. More important from an economic point of view, was the outbreak on the Commonage at Louis Trichard, in the course of which 200 head of cattle have died. The abnormal rainfall during the past wet season has been a contributing cause towards the high death rate, as dipping during wet weather cannot be depended upon to give satisfactory results.

In Barberton five fresh outbreaks have occurred and fifteen farms are still in quarantine, although eighteen have been taken out in the course of the year. Some of the existing centres of infection are in parts of the districts which are difficult of access and, although their inaccessibility may tend to prevent the further spread of the disease, it also renders the construction of dipping tanks and the supervision of dipping operations costly and difficult, therefore the mortality on these farms is likely to be considerable before the disease is brought under control.

In Piet Retief, where the position at the beginning of the present year was exceedingly hopeful, we have sustained a disappointing set-back. Five fresh outbreaks have occurred and, although the farms were fenced, they were not tanked and the mortality has been considerable, as the cattle belonged to Native squatters and the European owners have been most dilatory in complying with the Minister's orders to erect tanks.

In the Carolina district great difficulty is being experienced. The outbreaks are confined to the low veld area. Unfortunately the farms in this section belong to non-residents who live in adjacent high veld areas and merely use the infected farms for winter grazing for their sheep. In many cases these absentee owners are indifferent to the welfare of their native tenants and have hitherto ignored and evaded the Minister's orders to erect tanks. Now, however, steps are being taken to have the required tanks erected officially at the owners' expense and the work will be begun at once. The position would be better from an administrative point of view if an owner, in addition to being liable as at present, to have a tank put up at his expense, could be fined for disregarding the order. If this could be done the delays in complying with the Minister's orders, which occur so frequently at present, would be greatly reduced and our opportunities of stamping out the disease would be improved.

Turning to Natal we find that, while the number of outbreaks which have occurred during the year compares very favourably with the record of the year before—84 as against 126—many of these outbreaks have occurred in localities which have been free from disease for a long time, and when they were located the condition of affairs often pointed to the probability that the outbreak had been in existence for some considerable time. Although native stockowners are here so numerous, the larger number of these outbreaks have occurred amongst cattle owned by Europeans. We are occasionally told that East Coast Fever is a less serious menace to the prosperity of the farmer than the regulations enforced to prevent its spread. In a sense this may be true—when a farmer has facilities for dealing promptly with an outbreak, but this attitude is to be deprecated, as it may, and probably does, lead to the concealment of outbreaks and to endeavours on the part of certain owners to eradicate these without reporting to the authorities. Such attempts are fraught with danger to their neighbours, which is materially aggravated when such farms are traversed by a public road. It is always possible for East Coast Fever infection to persist on a farm for a very considerable time without the knowledge of the owner if he is in the habit of dipping his cattle with a fair degree of regularity, because if disease is introduced under such circumstances the attendant mortality may be insignificant and occasional deaths may attract no attention on account of the frequent absence of post mortem conditions which can be regarded as diagnostic of East Coast Fever, the mortality in such cases being often put down to "gall sickness" or to vegetable poisoning. To one or other of these causes I am inclined to think many of these mysterious outbreaks of East Coast Fever which have occurred lately in Natal can be attributed, and I would, therefore, urge upon stockowners the desirability of regarding any deaths of cattle occurring from undetermined causes with suspicion, and of taking blood smears from such cases and sending them in for examination. If this were always done I believe the position would speedily improve.

In some quarters there is a disposition to look upon increased supervision as a panacea, but with this I am not in entire agreement. Careful supervision of the dipping of native owned stock is undoubtedly desirable and necessary. Natives in most instances need help and guidance in mixing the dip, and are sometimes in-

clined to keep their animals away from the tank because of the labour involved in collecting and driving them to the dip. But after ten years of dipping there can be no excuse for the European farmer who neglects to dip his stock properly and regularly.

Meantime many breeders of pure bred stock are subjected to disabilities, which though galling are unavoidable, when they wish to dispose of their animals in other parts of the Union. Stock farmers know that in the dipping tank they have a weapon with which East Coast Fever can not only be fought but can be eradicated, and the sooner those who believe this can induce their neighbours to follow their example and dip their cattle properly and thoroughly the sooner the disease will disappear. I do not mean that the Department should wait for the arrival of this blissful state of affairs, or that it should relax its efforts in the least; but it is only by the combined efforts of the officials and the farmers that East Coast Fever can be stamped out.

I may mention that in the Vryheid Division eight outbreaks out of thirteen are attributed to movements of "salted cattle," which were formerly allowed to traverse infected and clean areas indifferently. For many years the officers of the Department have dwelt upon the desirability of stopping movements of this description and applying the same restrictions to animals said to be salted as to susceptible cattle, and I am glad to say that public opinion has veered round, and this policy is now inaugurated.

*Transkei.* In Butterworth two deaths have occurred in the past nine months: in fact in practically every district where adequate provision has been made for dipping, the natives have taken advantage of it and the condition of the Transkei to-day is infinitely better than anyone who knows what it was like three years ago could have anticipated. Natives are already seeking for opportunities to replenish their depleted herds, so satisfied are they with the progress which has been made in combating the disease. Much of our success is, undoubtedly, due to the harmonious relations which have existed between the Magistrates and the officers of the Veterinary Division, and is a striking illustration of what can be accomplished by tact and perseverance when the Government representative in charge of a district commands the confidence of the native community.

#### TUBERCULOSIS.

The position so far as this disease is concerned is still uncertain and unsatisfactory, and this state of affairs is likely to continue till it is realised that the only way to ensure that co-operation between the stockowners and those administering the Stock Diseases Regulations, which is essential to success and harmonious working, is by lightening the heavy burden now imposed upon the owner by deciding upon a reasonable and generous scale of compensation and making the necessary provision on the Estimates for meeting this expenditure. Pessimists insist that present-day methods are inadequate and that no country has ever succeeded in stamping it out, while others argue that vigorous measures are unnecessary as the salubrious air of South Africa is of itself sufficient to ensure the recovery of infected animals. But there is no doubt that in South Africa when the disease obtains a footing in a herd—even when that herd is kept under fairly favourable sanitary conditions—it tends to spread till a large proportion become infected. For this reason I once more appeal to those responsible for amended legislation and more funds to deal with a disease which, leaving its serious nature so far as bovines are concerned out of the question, is undoubtedly a menace to public health.

*Cape Province.*—Here the Senior Veterinary Officer reports as follows:—"From the prohibited areas (areas



in which the disease is considered to be most prevalent)—the Cape, Malmesbury, Paarl and Stellenbosch—6,139 head of cattle were subjected to the tuberculin test before removal; 111 reacted and were destroyed, a percentage of 1.81 reactors. I am of opinion that Tuberculosis is not rife in this Province amongst ranch cattle, even amongst cattle running on the veld in the prohibited areas. What little there is is confined mainly to the dairy herds which are stabled in and around Cape Town."

I believe that this is a correct estimate of the position, and that it applies to other Provinces as well as to the Cape Province, but the first step which should be taken to combat the spread of Tuberculosis should lie in the direction of making an earnest endeavour to cleanse the sources from which these dairy cows are drawn, thereby making it possible for a dairyman when he replenishes his herd to obtain healthy animals, rather than in attacking the dairy herds themselves in the first instance.

*Transvaal.*—The Senior V.O., Transvaal, holds similar views to those expressed by the Senior V.O., Cape, as to the prevalence of the disease, and urges amended regulations and the provision of increased compensation, in order that the disease may be tackled before it gets out of hand and becomes so prevalent that the suppression or control of the disease is impracticable.

*Natal.*—Here disease was discovered on eight properties during the year; 1,463 head were tested and 27 reacted.

*Orange Free State.*—In the Free State one case was located, the animal being an Ayrshire bull purchased by the British East African Government, which reacted to test when it was applied prior to the despatch of the animal. The animal was one of a herd imported from overseas and was previously tested together with the herd in October, 1914, when no reactions were obtained. Twenty cases of Tuberculosis in animals coming from the Free State were reported from the Pretoria, Johannesburg, Germiston and Durban abattoirs, all in animals the property of speculators obtained from sources which it was impossible to locate.

*Transkei.*—No cases were reported during the year. Government Veterinary Officer Webb has from time to time tested calves from reacting cows in quarantine on a farm in the Mount Currie district, but all have given negative results, which speaks well for the careful manner in which the reacting animals have been isolated.

#### ANTHRAX.

I regret I am unable to report any improvement in the position with regard to this disease. The Senior V.O., Cape Province, where there have been 221 outbreaks in the year, in the course of which 2148 head of stock have been dealt with, says:—"I am confident that the returns do not represent one quarter of the number of outbreaks which occur in this Province."

In the Transvaal, although fewer outbreaks have been dealt with than during the preceding year, there is little doubt that the remarks applied in the case of the Cape apply equally. In Natal the disease is reported to be on the increase; 42 outbreaks occurred; 176 deaths were reported and 12952 head of stock were inoculated. In the Transkei there has been an increase in the number of outbreaks reported, but natives are not backward in inoculating their animals, 41041 head having been under treatment during the year, and in one district—Engcobo—the whole of the Stock Inspector's time has been taken up in inoculating cattle against Anthrax.

In the Free State the number of outbreaks is still formidable, 103 as compared with 134, and in one particular outbreak—in Boshof—the type of disease was so virulent that neither the Institute Pasteur vaccine nor the local Laboratory vaccine had any immediate inhibitory effect on the progress of the disease, and repeated

inoculations were necessary before the progress of the disease was stayed. It may be possible that the unusual climatic conditions had something to do with its prevalence; but the fact remains that the disease, which is a menace to human as well as animal life, is on the increase although a vaccine against it is available the use of which in most instances is attended by satisfactory results. Unless stockowners take this disease more seriously, it is more than likely that other countries will place an embargo upon the introduction of animal products from South Africa.

*Glanders.* There has been a marked falling off in the number of outbreaks of Glanders. Fifteen outbreaks have occurred in the Cape Province, two of these were somewhat extensive, involving the destruction of fifty-one infected animals. The bulk of these occurred in and around the Cape Peninsula. In the Transvaal there were thirteen outbreaks none of them extensive. Natal has always been fairly free from Glanders, and this year there was only one reacting animal destroyed. In the Transkei one case of Glanders only is reported. Four outbreaks were dealt with in the Orange Free State. In dealing with these, 143 equines were tested, ten reacted and were destroyed.

*Lungsickness.* For the second time I am able to report no case of Lungsickness has occurred within the Union.

*Equine Scabies—Mange.* This disease is still fairly prevalent in four districts of the Cape Province. Most of the cases have occurred amongst equines owned by poor whites and coloured people, who do not look after their animals properly. In the Transvaal there has been a considerable increase in the number of outbreaks: most of these were in the Witwatersrand area. Five outbreaks were located in Natal, none of which were extensive: only three were discovered in the Transkei: none were found in the Orange Free State.

*Epizootic Lymphangitis.* In the Cape Province there were only six outbreaks of Epizootic Lymphangitis as compared with sixteen last year. The disease is practically confined to the Humansdorp district, where it has smouldered for many years. During the year a pamphlet was circulated in the district describing the disease and inviting the co-operation of stockowners. In Natal cases continue to occur in the coastal districts. Five outbreaks were dealt with in this area; six infected animals died or were destroyed. The other Provinces are free.

#### CONTAGIOUS ABORTION.

This disease is undoubtedly on the increase. Legislative measures for many reasons are ineffective to prevent its spread, and were it not for the fact that these probably check to some extent the extension of the disease amongst pure bred herds, (we still hope that some satisfactory method may be devised for dealing with it) I should be inclined to advocate the withdrawal of the disease from the Proclaimed Schedule and leave it to the breeders themselves to deal with it. At the present time we assist owners as far as lies in our power, to separate infected animals from those which are free from disease, but animals which have become infected do not immediately respond to the test, and animals which are no longer infective may continue to react, so the carrying out of this work is attended by a good deal of difficulty and uncertainty. In America this disease is regarded as being of the greatest economic importance and, next to Tuberculosis, probably the greatest tax upon the finances of the stock breeder, by reason of the losses amongst calves to which it gives rise; but although similar losses occur here when the disease first makes its appearance in a herd, it is well known that after one or two abortions cows become immune and carry their

calves the full term, even though the cows themselves may still be capable of spreading the disease. In the Cape Province only two outbreaks were recorded, but there is little doubt many more are in existence. The extent to which it is prevalent in the Transvaal is uncertain. In Natal twenty-three outbreaks were reported, and a good deal of work was carried out with a view to enabling owners to separate infected stock from healthy. In the Transkei the Senior Veterinary Officer expresses the opinion that centres of the disease exist in every district in the Territory, but that it is only in Mount Currie that owners report cases for the purpose of having their cattle tested. In the Free State eleven outbreaks were dealt with.

*Swine Fever.* During the year there have been ten outbreaks of Swine Fever in five districts of the Western Province of the Cape, in the course of which 377 animals died or were destroyed.

*Dourine.* This disease has now been definitely diagnosed. As far as we are aware, it is confined to the Herbert district, Cape Province. Leaflets have been circulated containing a description of the disease, and asking owners to report suspected case, but so far the invitation has met with no response. We now know that the disease has existed in South-West Africa for a considerable period.

#### RINDERPEST.

Early in the year alarming reports as to the southward spread of this disease reached the Union from Nyasaland, and according to a pre-arranged plan a small staff, consisting of three Veterinary Officers, with rinderpest serum and supplies left the Union at the beginning of April for the purpose of checking it if that were possible. The expedition travelled from Pretoria by rail to Beira, thence by coasting steamer to Chinde, thence up the Zambesi and Shire Rivers to Port Herald, thence by the Shire Highlands railway and by road to Zomba, and again by road to the south end of Lake Nyassa, then up the Lake by steamer to its northern extremity, then on foot to New Langenberg in German East Africa, which was then within the sphere of military operations. New Langenberg was reached on 11th May. Here the expedition was joined by two Veterinary Officers belonging to the Nyasaland Administration, one from Northern Rhodesia, another from Southern, and two who were lent by the Military authorities, together with four non-commissioned officers belonging to the South African Veterinary Corps.

Steps were taken to locate the disease and inoculation operations were begun; the original programme being the establishment of an immune belt of cattle in German territory along the Northern Rhodesian and Nyasaland borders, and extending from Lake Nyasa to the South end of Lake Tanganyika. There were no European settlers in the area, all the cattle being in the hands of natives, who were until recently under German control. The work was attended by many difficulties, especially in the New Langenberg area, where the numbers of cattle to be dealt with were very considerable. Much of it was carried out in the low-lying unhealthy country bordering on the northern shore of Lake Nyasa under tropical conditions. As time went on the staff of the expedition became reduced by the withdrawal and departure of members of the staff through illness and other causes, till at the end of the year only five Veterinary Officers, two non-commissioned officers of the South African Veterinary Corps, and one European Stock Inspector were available for the prosecution of the work.

From time to time the plan of campaign was modified in the hope of checking the disease without carrying out the entire programme, as the number of cattle which had to be dealt with proved greater than we anticipated,

but when I was recalled at the end of March, 1918, between thirty-seven and thirty-eight thousand head of native cattle had been immunised by the simultaneous method of injecting virulent blood and rinderpest serum, with an average loss of two or three per cent. These cattle are located in the New Langenberg area and in a belt extending from the edge of that district as far as Lake Rukwa. While carrying out this work some members of the staff covered over fourteen hundred miles on foot.

Various problems presented themselves for solution in the course of the work as, in addition to rinderpest, we had reason to believe some outbreaks were complicated with malignant catarrh, while at one inoculation centre which happened to have been established in an area in which East Coast Fever was endemic, and to which a considerable number of cattle susceptible to that disease had been brought for inoculation, we found ourselves confronted with cases presenting a pathological picture of Rinderpest, East Coast Fever, and Redwater all combined, and when the Rinderpest reaction had ceased, the cattle susceptible to East Coast Fever had afterwards to be moved about to shake off the East Coast Fever infection to which they had been inadvertently exposed.

The work of the Expedition at the moment of writing (31st July) is now practically completed, it having been found necessary to carry this out on the lines originally planned, and the members of the Expedition are now on their way back from the south end of Lake Tanganyika to New Langenberg, a distance of nearly 200 miles, the present senior officer being Captain Garden C.V.O., Nyasaland. Needless to say, most of the staff have suffered from the effects of the climate, and whether the ultimate object of the Expedition has, or has not been accomplished and the southward spread of the disease stayed, I can only express my unqualified appreciation of the services of those officers who have borne the heat and burden of the day and seen the work through to its completion.

In spite of the fact, that we have good grounds for hoping the disease may now remain within bounds, one complicating factor over which we have no control has to be reckoned with, and that is the possibility that it may be carried south by wild game, which might bridge the immune belt which has been created—but we must hope for the best.

Two features of the present outbreak struck me forcibly when comparing the type of Rinderpest met in German East Africa on this occasion with that which I met in Southern Rhodesia over twenty years ago. One was the comparative mildness of the disease and the slow manner in which it spread in the areas which it invaded. This is probably due to partial immunity possessed or inherited by native bred animals, and the care with which natives separate sick animals from healthy. The other feature was the small number of reports which reached me as to the ravages of the disease amongst wild game, as only on one occasion did natives report the occurrence of deaths amongst reedbuck and warthog, and that was when we were inoculating cattle near Lake Nyasa, between the Kiwira and Songwe Rivers. In this area, probably through the use of serum weakened through age and kept under unfavourable conditions, or because Rinderpest had already become established in some of the herds before work was begun, the reactions following inoculations were unduly severe, and the mortality unusually high; and here the natives reported that reedbuck and warthog were also dying. Enquiries were made at once, and from these it appeared there had been a certain amount of mortality amongst these animals, but we were unable to obtain evidence at first hand that these deaths were due to Rinderpest. Further North, in another instance, one of the Acting District

Commissioners reported that buffalo were dying in considerable numbers, but up to the time I left German East these were the only reports of mortality amongst wild game that came to our knowledge.

#### MEAT EXPORT.

The business of meat export is developing steadily, and had greater shipping facilities been available, it is certain that a good deal more meat would have gone overseas. The methods of preparing meat for export are capable of improvement, and must be improved—if we are to compete in the world's market, and I would again urge the desirability of sending one or more veterinary officers overseas to study methods of grading, etc., in countries where this business has assumed large proportions, in order that we may benefit by the mistakes of others instead of having to learn by our own. The services of officers with such experience, which could be placed at the disposal of those entering into the business would be greatly appreciated by those interested in the development of this industry.

#### STAFF.

During the past twelve months the Division has been severely handicapped by the reduction of personnel due to various causes. Many officers have been lent to the Military authorities for service in German East Africa, some have gone overseas, the Rinderpest Commission claimed others, and those who have remained have had more than enough to do. It is at times like these that the want of motor transport is severely felt, and although some officers who could afford to do so purchased cars themselves to increase their efficiency, there are others who could not, and their activities have been correspondingly lessened. The present system obtaining, in the case of those who buy their cars either with or without Government assistance, of paying a mileage allowance is, I submit, an unsatisfactory one. As a rule it means that the officer using the car either gains something out of the allowance, or he does not come out on it. My own view is that in cases in which the use of motor transport increases the efficiency of officers by enabling them to cover more ground and do more work—thereby effecting an economy in staff, motor transport should be supplied and maintained by Government, and that more cars should be obtained to supplement the one Government car at present in commission and used by the G.V.O., Johannesburg.

It is with great regret I have to record the loss sustained by the Division by the demise of G.V.O. Dale, an officer of great experience and tact, who died at Durban in July. We have also lost, through death on active service, several of our Stock Inspectors—well-trained officers who could ill be spared.

As in former years, I must once more gratefully acknowledge my indebtedness to the staff generally, both administrative and clerical, to the Assistant P.V.O. for the assistance given me in carrying out the work of the Division, and to the Magistrates, the Police and the officers of the Native Affairs Department, with whom it has been my privilege to co-operate.

C. E. GRAY,

Principal Veterinary Officer.

(The usual returns with tables conclude the report.)

#### ROYAL ARMY VETERINARY CORPS.

The Corps' Annual Dinner will be held this year on Friday the 20th June, at the Savoy Hotel. All officers who have served in the Corps during the war are eligible to attend. It would greatly assist if those who purpose being present will inform me as early as possible.

E. E. MARTIN, Col.,

16 Victoria St, S.W.1. Hon. Sec. to R.A.V.C. Dinner.

#### MILK AND TUBERCULOSIS IN MANCHESTER.

The following is from the report on the Health of the City of Manchester, 1917, by James Niven, M.A., M.B., LL.D.

"In submitting the report of the work done in connection with Tuberculosis and Milk for 1917, I have to say that we have only had the services of a Veterinary Surgeon on one day each week. Mr. J. F. Dixon, M.R.C.V.S., of the City Abattoir, has been loaned by the Markets Committee to the Hospitals Sub-Committee—with serious interruptions, inevitably, no doubt—for the purpose of following up positive station samples of Tuberculous milk and for the examination of the cows within the City. The latter, however, has not been carried out, except fragmentarily.

Mr. J. B. Wolstenholme, F.R.C.V.S., has rendered service on various occasions when Mr. J. F. Dixon was not at liberty. Under these circumstances, it will be readily understood that the work accomplished is less than in the year 1913, when Mr. J. W. Brittlebank, M.R.C.V.S., Veterinary Surgeon to the Sanitary Committee, was able to devote a large part of his time to these duties. At the outbreak of the war he joined H.M. Forces, and now holds the rank of Lieutenant-Colonel. The further distinction has been recently conferred upon him of C.M.G.

Much valuable work has been accomplished, however, during the limited time at their disposal by Mr. J. F. Dixon, M.R.C.V.S., and Mr. J. B. Wolstenholme, F.R.C.V.S.

The number of farms within the City which are occupied as Dairy Farms is 94, whilst the number of cows kept is 1,425.

Sixty-one City Farms were inspected in the year by Mr. J. F. Dixon, M.R.C.V.S., and Inspector Higginbotham. The herds on these farms numbered 968. 35 individual samples of milk were obtained, 4 of which gave positive results. In one instance the whole of the carcass was destroyed as unfit for food. In the case of the other three cows, some portion of the animals was destroyed and the remainder passed as fit for human consumption.

The general condition of the cows within the City has been well maintained, considering the difficulties which have had to be overcome. Many farmers have lost their experienced cowmen owing to the war and to the attractive wages to be obtained in other industries, in which the hours of labour are considerably less. This constant change of farm hands and the substitution of inexperienced for experienced cowmen has led to a reduction in the standard of cleanliness of the cows and cowsheds. Shoddy was found to be in use as bedding on a number of farms. The farmers state that, owing to the scarcity of sawdust, and straw being used as a feeding stuff, they had nothing to fall back upon except shoddy on which to bed their cows.\* Very real difficulties with regard to feeding stuffs have had to be overcome. Many City farmers cannot grow sufficient hay to fodder their cows, whilst the growing of roots on the north side of the City is not practised. In several cases the feeding of cows has been of a hand-to-mouth character, so that much of the cowkeeper's time has been used up in getting feeding stuffs.

#### Dairy Utensils.

The conditions now prevailing are again alleged to be responsible, in a large measure, for several cases of dirty or unsatisfactory dairy utensils that have come to my notice. Owing to the lack of labour, it is more than ever necessary that some simple steam installation should form part of all dairy equipment. A number of the large dairymen and one farmer have high-pressure steam plants. The saving in labour and fuel costs by using steam for all dairy purposes are well illustrated by

\*This is, of course, quite inadmissible.

one farmer, who is also a dairyman, on a large scale. Some two years ago, following an outbreak of Diphtheria caused by infected milk from this farm, a high-pressure steam plant was instituted at the instance of the Medical Officer of Health. The farmer now expresses much satisfaction at the result. All dairy utensils and delivery bottles are sterilised after use, with the result that they have not had any sour milk since the steam installation was put in. The saving on this head alone has been sufficient to cover the outlay. The saving in fuel has been no less marked. Hot water was previously obtained by means of sett boilers heated by coal. Steam is now raised by coke breeze, in sufficient quantities for all dairy purposes and the boiling of pig food, at one-fourth the cost of coal in the old method, whilst the saving in labour is so great that were it not for the steam they would hardly be able to carry on their business at the present time.

#### *The Manchester Milk Clauses.*

The Manchester Milk Clauses have been operated as in former years, so far as the obtaining of milk samples has been concerned and the following up of positive station samples. A change in dealing with the cows found to have positive tuberculous lesions in the udder has been brought about by the operation of the Cattle Sales Order of December 17th, 1917. Our former custom in dealing with an animal from which a positive tuberculous sample of milk had been obtained was for the farmer to send the cows to a Public Abattoir wherever possible, so that the carcass could be inspected and its condition ascertained after slaughter, and the necessary steps taken with regard to the meat if the whole or any part of it was unfit for human consumption. Under the Cattle Sales Order referred to above, all cattle, whatever their condition, if sold for beef, must first be graded at the auction to which they are sent for sale. It may happen, if the farmer is disposed not to inform the Grading Officer as to the known condition of his cow, that it may be graded in a higher class than it would be if its condition were made known at the time of grading and sale. The loss accruing from such disposal of a known tuberculous cow which may not exhibit any patent external signs of Tuberculosis falls on the butcher or association of butchers acting under Food Control Committees. Further, it is almost impossible for a cow to be traced through an auction to its place of destination before the animal has been slaughtered and, in all probability, consumed, so that we are not in a position, either from Manchester or through the Local Authorities, to have the cows inspected by a veterinary surgeon at slaughter.

In a number of recent cases the farmers have informed the Grading Officer of the condition of the animal beforehand, so that the cow has been graded according to its condition. Steps have been taken to have the cow slaughtered locally under the supervision of the authorities. The farmer, under these circumstances, only receives the maximum value of such portions of the carcass as are passed as fit for human consumption.

#### *Tuberculous Milk.*

During the year 330 samples of milk have been collected by the Food and Drugs Inspectors in connection with Tuberculosis. Of this number, 311 were collected at the railway stations, and the remaining 22 from carts coming in by road. In addition, 35 individual samples of milk have been obtained by the Veterinary Surgeon from cows at various farms within the City. The number of farmers represented in the total is 365.

Of these 365 farmers, 35 reside in the City, and 4 (11·4 per cent.); 192 reside in Cheshire, and 26 (13·54 per cent.); 43 live in Derbyshire, and 4 (9·3 per cent.); 23 live in Staffordshire, and 1 (4·3 per cent.); 34 live in Lancashire, and 4 (11·7 per cent.) sent tuberculous milk;

4 live in Yorkshire, Westmoreland, and Cumberland, and none of them sent tuberculous milk.

The following table of samples submitted in connection with the Manchester Milk Clauses summarises the work of the year 1917:—

Specimens of mixed milk taken at the station	311
Specimens of mixed milk elsewhere (for administrative purposes)	22
Found to contain tuberculous infection: Station 30, elsewhere 3. In addition, 29 control samples were taken at the stations and elsewhere, 12 of which were proved capable of causing Tuberculosis.	33
Farms visited in consequence. Of these, 5 belonged to the year 1916.	38
Specimens taken from individual cows as the result of following up station and other samples	125
Milks from individual cows proved to be tuberculous out of those given in the preceding column	26
Udders proved to contain tuberculous lesions	26
Milks taken from individual cows as the result of notification or otherwise than owing to the presence of tubercle bacilli in mixed milk. This relates to City Farms.	35
Udders in last column shown to be tuberculous by bacteriological examination. This relates to City farms.	4
Submitted for examination	522
333 mixed samples—primary. 29 mixed samples—controls. 160 individual cows.	

From particulars supplied by farmers, 258 of whom replied to our queries, we find that on these farms there were 5,221 cows, or an average of 20·23 cows per farm.

Reference to the above tables will show that the percentage of farmers whose milk was examined, and who were found to be sending tuberculous milk, was 10·13 per cent. It will be seen that since 1915 there is a decline. This is all the more satisfactory when the difficulties as to food for cattle are taken into consideration. The country farmer, no less than the city farmer, was greatly hampered in 1917 by the great shortage of feeding stuffs for cattle. They had to rely very largely on their own resources for whatever corn was fed to the cattle. Many farmers have experienced a shortage of hay. Straw had to be fed to cattle in considerable quantities.

Visits were paid to 38 country farms from which tuberculous milk was being sent into the City. The herds on these farms numbered 1820. 10 farms were visited twice owing to the control samples proving tuberculous, whilst one farm was visited four times before the animal concerned was discovered. 26 cows were proved to have tuberculous lesions in their udders; 25 of these were slaughtered, and one remains to be slaughtered.

The farm, which was visited on four occasions before the animal was discovered, had a herd of 12 cows. On the first visit three samples of milk were obtained, all of which gave negative results. It should be noted here that all the cows were first milked down to the stripplings, only the stripplings being drawn for the samples. A control sample of mixed milk proved positive. A second visit was paid in consequence, and three samples of milk were obtained from three other cows. These, likewise, proved negative. These samples were obtained as described above. A second control sample proved positive. The farm was visited a third time, when a mixed sample from every two cows was obtained—one of these gave a positive result. One of the two cows whose milk formed this positive mixed sample was sampled on the first visit, and gave a negative result. In this third instance be it noted the animals were not milked prior to the samples being obtained, but the milk sampled and tested was the first milk drawn from the udders. A mixed sample from two of these cows

was found to be positive. A fourth visit was paid, and two individual samples of milk were obtained from the two cows the mixed sample from which had proved to contain tubercle bacilli. The cow from which a previous sample of milk strippings had been obtained with negative results gave a positive result with the first milk drawn from the udder. It can only be concluded from this that the tuberculous lesion discharged itself in the first milk drawn from the udder, whilst the strippings were free from tuberculous infection.

#### STATUS OF THE VETERINARY PROFESSION.

Sir,—Whilst there is much that is good in Mr. Squair's letter, I feel that a protest should be made against the insinuations made by him in the following sentences :— "How many public schoolboys have the courage to enter the profession? or having entered it, have the guts to become successful veterinary surgeons?—very few, indeed." Mr. Squair forgets the reference by a noted man to "The playing fields" of the schools. The records of Marlborough, Eton, Rugby, Rossall, Tettenhall, Mill Hill, the various Grammar schools, the Scottish schools etc., will prove that whatever other virtues may have been lacking, pluck, courage, and resource have been outstanding features in the public schoolboy. A great many men from these schools have been first rate horsemen, seamen, soldiers, explorers, and the number of men who have led in art, science, commerce, law and literature is quite marked, and in many cases well known. I do not believe, after over quarter of a century's experience, that any special virtues or any remarkable display of pluck is necessary to become a successful veterinary surgeon. Just the old virtues are required—patience, perseverance, assiduity and brains. The rewards are not great but the life has its compensations. Greed and avarice often produce better material results than open mindedness and open handedness, but the latter type of gentleman is the more worthy. There is much in the view that a man is largely what he makes himself—"When the student of veterinary science essays to enter into companionship with men learned in law, medicine and theology he owes it to them and to himself to make himself worthy of that companionship."—Yours faithfully,  
G. MAYALL.

Sir,—There is some unconscious humour and considerable *naïveté* in Mr. Chas. A. Squair's attempt to divert attention from the central theme—the relative veterinary status—by writing a dissertation on "guts." My letter did not reflect on the standing of the individual, and in those circumstances Mr. Squair's personality surmises and deductions are indications that he has not yet mastered the ethics of journalistic controversy. Moreover, in his haste to become personal he has buried himself in the morass of a loose premise, namely, that those who take a somewhat pessimistic view of the relative veterinary status are mere local nonentities who have failed to gain the confidence and friendship of the washed and unwashed of Corngate, Cowdale, Cottonville, Whippetfield, Whitechapel, or wherever they may be located. Mr. Squair will perhaps correct me if I am wrong, but I seem to have an idea that General Sir Frederick Smith, in a paper read before the Society of Arts last December, mentioned that a certain Roman general placed it on record that in Italy the treatment of animal diseases was regarded as a mean and contemptible occupation. Sir Frederick added that although 1500 years had elapsed since the Roman general pronounced judgement, public opinion had undergone very little change in this respect.

Not content with one faulty premise Mr. Squair proceeds to lay down a second thuswise: The public school-

boy has not the courage to enter the veterinary profession, or entering it has not the guts to become a successful veterinary surgeon. The obvious inferences here are that the public schoolboy has less courage and strength of will than the youth of inferior education, and that success in one or other of the numerous branches of the veterinary calling is in inverse ratio to youthful social advantages and scholastic attainments! Carried to a logical conclusion Mr. Squair's doctrine would seem to imply that it needed more courage to become a dustman than a Lord Chief Justice, or a knackerman than a medical officer of health. And this reminds me of the axiom that "To be ignorant of one's ignorance is the malady of the ignorant."—I am, Sir, Your obedient servant,  
"WATCHMAN."

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919 :—

Aulton, F., Tutbury	1	1	0
Chadwick, J. B., D.V.H., Manchester	1	1	0
Edwards, W. W. H., Ludlow, Salop	1	1	0
Evans, E. P., Cardiff	1	1	0
Green, W. G., Capt. R.A.V.C.	1	1	0
Harris, P. J., Lt.-Col. R.A.V.C.	1	1	0
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James, W., Llanybyther	1	0	0
Nye, S. H., Loughton	1	1	0
Walker, G. K., C.I.E., O.B.E., Lt.-Col. R.A.V.C.	1	1	0
Ward, J. A., Capt. R.A.V.C.	2	2	0
Wright, J. H., Major R.A.V.C.	1	1	0
Previously acknowledged	718	17	0

April 29.	£732	9	0
Carter, F. P., Bradford, Yorks.	1	1	0
Cattell, J. G., Karachi, India	1	1	0
Cooper, J. N., Capt. R.A.V.C.	1	1	0
Millar, T., Saskatchewan, Canada	2	1	10
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Woodcock, E. R. H., Capt. R.A.V.C.	1	1	0
Previously acknowledged	732	9	0

May 6.	£739	15	10
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#### DR. CLEMENT STEPHENSON'S WILL— THE BEQUEST TO ARMSTRONG COLLEGE.

On Tuesday, 6th, in the Chancery Division, Mr. Justice Astbury decided a point arising out of the will of the late Dr. Clement Stephenson, of Newcastle. The plaintiffs were the trustees of the will, the defendants being the Armstrong College and the Victoria Veterinary Benevolent Fund.

Mr. Lavington, for the trustees, said that the point was whether or not the Armstrong College took a share in the residuary estate of the testator. This estate was very considerable. The testator left £5000 to the college, to build laboratories in connection with agriculture. But, in fact, the testator paid the college that sum during his lifetime, thus rendering the legacy not payable. The will gave the residue to be divided proportionally amongst the various institutions "to which I have bequeathed legacies," and thus the question arose as to whether the College shared inasmuch as it had not actually received a legacy but had been paid in the testator's lifetime.

His Lordship held that, upon the clear intention of the testator, the college was entitled to participate in the bequest of the residue.

The trustees are Dr. Page and Mr. J. D. Walker.—*Newcastle Daily Chronicle.*

## ELECTION ADDRESS.

*To the Members of the  
Royal College of Veterinary Surgeons.*

Having been nominated as a candidate for Council at the forthcoming election, I venture to ask the hospitality of your columns to allow me to briefly state my views on one or two of the questions now before the profession.

In the first place I may state that I lay claim to a more than average acquaintance with the practical politics of our profession, as I was for fifteen years Hon. Secretary of the Lancashire V.M.A. and for the past nine years have also been Hon. Secretary of the National Veterinary Benevolent and Mutual Defence Society, and it is scarcely necessary for me to add, have always been extremely jealous of the welfare and good name of our profession.

I feel, however, that the whole question of veterinary politics is rapidly approaching a very critical position, which requires very careful handling at the present moment, as any diplomatic mistakes are likely to lead to far-reaching consequences in the future.

The whole legislation is at present under revision and some of the measures of reform, or shall I say, reconstruction, are bound to affect us intimately.

The Public Health Bill for instance, has passed its second reading in the House of Lords, and will in a few days secure the Royal approval. This measure sets up an entirely new authority, with perhaps, powers so far-reaching as to be compared to those conferred under D.O.R.A. It is not possible at the present to venture a forecast, but that it will very materially affect the veterinary profession may be accepted as a certainty. No Public Health Service can be complete without the fully trained veterinarian, and it is now generally admitted, but unfortunately the public are not yet acquainted with the full extent of our utility. I am therefore in favour of a vigorous policy to secure full recognition of our profession and an adequate protection of our interests, and to this end will support any effort which may be put forth to obtain representation on the Council and Consultative Committees to be formed under the Bill.

The question of fees and salaries paid by public authorities requires early review, as a great majority of the veterinary surgeons concerned are quite inadequately remunerated for the services they render. As a general practitioner I am naturally familiar with the problems they have to face, and shall at all times watch their interest.

The Master Farriers' Bill is, for instance, in my opinion, directly designed to attack the rights and privileges of our calling and requires closely watching.

I am a strenuous supporter of the maintenance of a high standard of education, both preliminary and professional, for the training of our students, and will at no time consent to any relaxation of the high standards aimed at; indeed, if the profession is to make any real advance it must be prepared to accept its responsibilities in this respect.

It is not possible in a necessarily short address to state one's views fully, but if fortunate enough to be elected by my professional brethren, they may be sure that I belong to no clique or faction, and they may rely on my faithful and disinterested service on their behalf.

G. H. LOCKE, M.R.C.V.S.

**The R.A.V.C. Comforts Fund.**

*List of Subscribers since those published in the "Veterinary Record" of March 8th.*

Per Maj. W. Logan, R.A.V.C., from personnel			
Div. Vety. Hosp., St. Albans	£25	0	0
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Canteen Funds of No. 8 Vety. Hosp.,			
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Caughy, Esq.	£126	7	
2/- Mrs. E. Irvine.			
Total amount of Subscriptions	£172	4	6
Postage, etc.		4	6

Amount sent to the Hon. Secretary,  
R.A.V.C. Comforts Fund £172 0 0

In addition to the above, T. E. McConnel, Esq., J.P., presented a cheque to Mr. Ewing Johnston, value £31 10, to pay printing expenses in connection with the R.A.V.C. Comforts Fund Ballot.



## ARMY VETERINARY SERVICE

Windsor Castle, May 3rd.

His Majesty held an Investiture at Buckingham Palace at 11 o'clock.

The following were severally introduced into the presence of The King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

## THE DISTINGUISHED SERVICE ORDER.

\* \* \* \*

Lt.-Col. MAX HENRY, Australian Army Veterinary Corps

The King then conferred decorations as follows:—

## THE MILITARY CROSS.

\* \* \* \*

Capt. REGINALD VICKERS, Canadian Army Veterinary Corps.

Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, April 30.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Can. A.V.C.—Temp. Capt. E. A. Watson ceases to be secd. for duty with the War Office (Mar. 21).

May 2.

Temp. Qmrs. and Lts., R.A.V.C., to be Capts., under Art. 330, R.Wt. for Pay and Promotion (Apr. 21):—  
T. E. Clarkson, J. R. Devereaux.

May 5

Temp. Capt. C. W. B. Sikes relinquishes the actg. rank of Maj. on ceasing to be empld. as D.A.D.V.S. (Apr. 17).  
The surname of Capt. A. Monro is as now described, and not as in *Gazette* of April 28.

## TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

May 2.

Maj. (temp. Lt.-Col.) A. W. Mason, O.B.E., F.R.C.V.S. (ret. T.F.), is retired, having attained the age limit (May 3), and retains the rank of Lt.-Col., with permission to wear the prescribed uniform.

May 3.

Maj. (actg. Lt.-Col.) E. W. Parks, relinquishes the actg. rank of Lt.-Col. on ceasing to be empld. (April 2);  
Capt. (actg. Maj.) J. Adamson, M.C., relinquishes the actg. rank of Maj. on ceasing to be empld. (Mar. 29);  
Capt. (actg. Maj.) P. Abson, relinquishes the actg. rank of Maj. on ceasing to be empld. (Mar. 28).

May 5.

Capt. (actg. Maj.) J. A. Dixon, (T.F.), relinquishes the actg. rank of Maj. on ceasing to be empld. (April 9);  
Capt. (temp. Maj.) J. L. C. Jones, (T.F.), relinquishes the temp. rank of Maj. on ceasing to be empld. (Apr. 9).

## Personal.

HILL.—On the 1st May, 1919, at 2 Inglis Road, Addiscombe, to Kathleen Elise, wife of Captain W. Roy Hill, R.A.V.C.—a son.

## OBITUARY.

A. W. BLAND, M.B.C.V.S., Scunthorpe, Lincs.  
Graduated N. Edin.: 21st Dec., 1891.  
Mr. Bland's death occurred 1st May.

## Ancient breeds in Sheep.

Professor Cossar Ewart, who, it will be remembered is Hon. Member of the National V.M.A., contributes an article on the intercrossing of sheep to the current *Journal* of the Scottish Board of Agriculture, from which the following extract is taken:—

"Of all the sheep now living in the British Islands, the sheep marooned on the small uninhabited and rarely visited island of Soay are the most primitive—they probably closely resemble two breeds of sheep introduced into Britain about 2000 B.C., namely, a breed (the ewcs of which had goat-like horns) probably descended from the Urial (*Ovis Vignei*) still found in Central Asia, and a breed (the ewes of which are hornless) probably descended from the Moufflon still found wild in Sardinia. As the Soay sheep consist of two distinct types which refuse to blend, they are not likely to be as prepotent or as exclusive as the Southdown. In both varieties of Soay sheep the wool is very short and fine, but so close that they are as hardy as the Highland blackface. Further, Soay sheep are long-lived, easily kept and very prolific—a ewe brought from Soay in 1893 died in 1914 after rearing her 32nd lamb. Like the Moorit sheep of Shetland, Soay sheep have never acquired the habit of accumulating fat in the sub-cutaneous tissues—hence they are classed with breeds deficient in mutton characters. In having large horns, long ears and a throat fringe, a narrow-arched back and low, narrow shoulders, long slender limbs and a somewhat low set on tail, Soay rams profoundly differ from plump comfortable-looking Southdown rams, obvious products of intensive artificial selection. At the end of the Bronze age, herds of the Urial-Soay and Moufflon-Soay sheep and of 'four-horned' sheep occurred in most parts of Europe. Remnants of these pre-historic varieties still survived in many parts of the Continent during the first half of the nineteenth century, but by the end of the century the primitive breeds had been supplanted in most areas by improved breeds. At the present day piebald and other varieties of 'four-horned' sheep are still preserved in private parks, but herds of Neolithic and Bronze age sheep of the Urial and Moufflon type are now rarely met with, except in outlying or isolated areas, such as the Faroes and Iceland, Shetland, Soay and the Isle of Man, Brittany, D'ouessant (a small island off the coast of Brittany), the Auvergne, the Alpes Maritimes, the Ardennes, and certain parts of Russia and Western Siberia. The members of the herds in these areas vary in make, coat, and colour, but, with few exceptions, are characterized by a short tail, fine limbs, and an almost complete absence of mutton characters. In the most typical members of the herds, the coat usually consists of fine wool which varies in colour from fawn to reddish-brown—because of the reddish colour of the fleece such coloured sheep are often known as Moorit sheep. The fine reddish short wool forming the fleece of some of the better bred Moorit sheep corresponds to the fine white wool forming the inner coat of wild sheep. We may assume that as the coarse hair inherited from the wild ancestors was gradually eliminated, the fine wool forming this inner coat gradually became pigmented. If we assume further that the least conspicuous individuals had the best chance of eluding eagles, ravens, and other enemies, we can understand why so many primitive 'peat' or 'heath' sheep are of a fawn or brown colour. It may be mentioned that the loss of the coarse hair forming the outer coat was due more to changes in the environment than to selection by the ancient herdsman."

### Sale of Aborting Cows: Testing Cattle for Export.

At the annual general meeting of the National Cattle breeders' Association, held in London, the secretary reported that a copy of the following resolution, passed at the last meeting had been duly sent to the Board of Agriculture and acknowledged by that body.

"That any person who knowingly exposes for sale in a public market, within a period of two months, a cow or heifer that has prematurely calved, will be guilty of a penal offence, and that the Board of Agriculture be asked to insert this in a General Market Order, or alternatively to grant powers to local authorities to insert it in their own market orders."

The secretary was directed to ask the Board what steps they had taken in connection with the said resolution, or whether or not it would be carried into effect.

The question of official testing of cattle for tuberculosis was fully discussed. A resolution from the English Aberdeen-Angus Cattle Association was taken to initiate a discussion.

"That the National Cattle-breeders' Association be requested to consider the possibility of securing an official test for tuberculosis in this country for all animals sold for export, as is already arranged in the case of the United States."

Mr Bridges said that when cattle were tested in this country and passed for export to South Africa, they often arrived there with a high temperature, which might last for weeks. In such a case the animal was

destroyed; this not only affected the exporter, but came back on the vendor as well, because it is not reasonable to expect that the prices here would be as good as they would be otherwise.

The Hon. C. B. Portman said there were many objections to a permanent station for testing, as animals perfectly healthy at home might be infected en route. He was of the opinion that what was wanted was that an official from each country should be appointed to visit the farms and test there. It was finally resolved:

"That a special committee (appointed) be empowered to approach the Board of Agriculture and the breed societies, and to take any steps that may be deemed necessary in order to carry out the resolution mentioned above."

### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND. 10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged:—

J. N. Cooper, Capt. R.A.V.C.	£1	1	0
H. Gillmor, Ayr	1	1	0
H. Greenfield, Major R.A.V.C.	1	1	0
G. Jelbart, Stow-on-the-Wold	1	1	0
Vety. Officers' Association, Ireland	2	2	0
Previously acknowledged	245	3	7

May 7.

£251 9 7

### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.			Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
			Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered.*
			Dogs	Other Animals											
Gr. BRITAIN.															
Week ended	May 3		12		3	4			1	2	114	201	2	50	15
Corresponding week in	1918				12	2				1	95	143	2	49	16
	1917				14	15		1	1	47	85	6	69	33	
	1916				19	21				58	82	2	123	446	
Total for 18 weeks, 1919			67	2	67	91	19	153	6	30	2717	5359	209	472	164
Corresponding period in	1918				115	130			13	37	2314	4446	224	372	130
	1917				243	278			11	20	1247	2608	354	909	377
	1916				220	291	1	24	21	62	1220	2906	167	1646	5137

(a) Confirmed. (b) Reported by Local Authorities Board of Agriculture and Fisheries, May 7, 1919

† Counties affected, animals attacked:—Middlesex 1, Warwick 1 Excluding outbreaks in army horses.

IRELAND.		Week ended May 3		...	...	...	...	...	Outbreaks	...	...	...
				1	...	...	...	...	1	...	...	...
Corresponding Week in	1918	...	...	...	...	...	...	...	...	3	...	...
	1917	...	...	...	...	...	...	...	1	10	5	51
	1916	...	...	...	...	...	...	...	...	1	7	13
Total for 18 weeks, 1919		...	...	...	...	...	1	1	57	139	16	57
Corresponding period in	1918	...	1	1	...	...	...	...	57	154	7	27
	1917	...	2	2	...	...	1	1	17	203	113	79
	1916	...	1	5	...	...	...	...	28	201	107	543

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, May 5, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1610.

MAY 17, 1919.

VOL. XXXI.

## THE COUNCIL ELECTION.

During the coming week the Annual Report and the voting papers will be issued; and we shall be confronted with the Council election. The present liveliness in veterinary politics imparts some interest to the election, but fortunately no test question is before the electors to give prominence to men of one idea.

It is unquestionable that the profession has reached a critical period in its history, and that the Council, for years to come, will have onerous and difficult duties to perform for us. Present information upon some of the obstacles the Council will have to face is incomplete, and it is certain that the nature of some others is yet unforeseen. Undoubtedly we want good men to grapple with them.

Not a little criticism has lately been passed upon the present Council; but it is a question how much or indeed whether any of it is just. Most of it is merely a symptom of disturbance, and it is evident in almost every section of the nation just now; there is also the natural, though not always reasonable human tendency to abuse those in authority whenever times are hard. On the whole, the Council have done excellent work for us during the recent troublous years; and have secured not a few rights and privileges to members which a careless or inefficient governing body would probably have failed to obtain. A great deal of this is due to the exertions of the President and a few others; and we may agree that the less prominent Councilmen deserve at least some credit for having chosen their leaders wisely and supported them loyally. It is noteworthy that no critic of the Council has anything but praise for its president; and, indeed, there is a singular lack of definiteness about almost all the complaints we have heard of the Council's work. Most of the suggestions that have been advanced for amending it have been equally vague: and some, such as the will o' the wisp of "district representation," are positively mischievous.

We want a Council of hard workers and level-headed men, with the energy, knowledge, and prudence to deal with the many difficult questions they will have to face.

## A VOICE FROM THE PAST.

We reprint this week (p. 418) almost in full, the remarks of an earlier writer on what is now termed "the status of the profession." The writer deals mainly with one phase of the matter, but his feeling is so much in accord with some of the recently expressed ideas, and withal is so thoroughly sound that we have no hesitation in re-presenting them to our readers. Much has happened within—and without—the profession since the article was

written, but it shows us that there were in that day men in the profession whose aspirations for the profession were as keen and as sincere as any of those of to-day. Since then the advances of the profession have placed it more nearly on a level with the medical, even though we admit it an "inferior member." But now, as then, it is the men who show intelligence and self-respect who maintain, and help to raise the status of the whole body.

The extract is taken from the Editorial page of *The Veterinarian* for March 1st, 1830,—fourteen years earlier than the date of our First Charter—it is unsigned, but the title page of the annual volume bears the names, as editors, of Messrs. Percivall and Youatt.

## UMBILICAL TUMOUR AND FUNICULITIS DUE TO SCLEROSTOMES.

Hartog, in the *Tydschrift voor veeartsenykunde*, reports this case. An eighteen months old gelding presented a soft irreducible tumour, the size of a turkey's egg, in the umbilical region. No opening in the umbilical region could be perceived. The nature of the tumour could not be diagnosed till after operation. At the same time the animal showed a hard pear-shaped tumour of the size of the fist in the left inguinal region. This tumour did not extend very high into the inguinal canal, and showed no trace of fistula.

The inguinal tumour was operated upon in the classic manner; but, after dissecting the vaginal sheath, Hartog found that the epiploen had descended into the tumefaction. He therefore twisted the sheath upon itself with its contents, and applied a clamp as high up as possible.

The umbilical tumour was operated upon under local anaesthesia. An incision was made upon the median line, the two lips of the cutaneous wound were separated, and the tumour was dissected to its base. Although he could perceive no opening in the umbilical region, Hartog had the impression that the umbilical orifice was not obliterated in a normal manner, for a loose depressible tissue existed in that place. Supposing that there must be a very narrow orifice in the abdominal wall, Hartog applied an elastic ligature to the base of the tumour, and excised the mass a small distance from the ligature. The tumour consisted of a structureless mass of gelatinous consistence and brownish colour. In its centre, Hartog discovered six armed sclerostomes. It is certain that the neoformation must have been provoked by the irritation due to sclerostomes.

After three days the stump of the testicular cord was excised below the clamp. Incising the mass, Hartog found in it five sclerostomes, several of

which were still living. It is to be presumed that the funiculitis must have been provoked by the presence of the parasites.—(*Annales de Médecine Vétérinaire*).

#### ENTERRHAGIA FROM COMPRESSION OF THE PORTAL VEIN.

Prévost, an army veterinary surgeon, reported the following remarkable case to the Central Society of Paris. A four-year-old mare, in rather poor condition, showed colicky symptoms; and the stable attendant perceived that during the night she had lost by the anus a quantity of blood, which was estimated at several litres. Upon examination, the mare was found to be depressed. The pulse was small and imperceptible, the conjunctiva pale, and the flanks agitated. The vulva was clean, but the margin of the anus was still covered with blood. The faeces were hard and blackish. Manual exploration of the rectum did not reveal the least trauma. The haemorrhage did not recur, but the mare soon died.

The post-mortem examination resulted as follows. When the abdomen was opened, one or two litres of red serosity flowed out. The peritoneum was inflamed, and was largely separated from its attachments in the region of the right kidney, where it formed a capsule filled with pus. There was, therefore, a peri-renal abscess, which was regarded as due to strangles, and which reached the size of a child's head. The kidney was simply congested. The great mesenteric artery was gorged with blood. The portal vein was compressed by the abscess, which had developed insidiously. The resultant venous stasis had produced a haemorrhage at the most dependent part of the large colon, in the region of the diaphragmatic flexure. The vena cava had escaped the compression.

It is rather interesting to note that, in polygastric animals, abscesses of the kidneys have not usually such grave effects upon the portal circulation.—*Annales de Médecine Vétérinaire*.

W. R. C.

#### CHARGES OF VETERINARY SURGEONS.

*Licet omnibus, licet etiam nobis, dignitatem artis veterinariae tueri.—Cicero.*

A recent decision in the Court of King's Bench has afforded matter for gratulation to the general practitioners of human medicine. Mr. Handley, a surgeon-apothecary, had attended a patient during several weeks; and on his bill being demanded, had sent in an account of visits and medicines, and the medicines very few in number. He affixed no separate price or charge to the different items, but placed a sum, and a very moderate one, at the bottom of the list. The patient refused to pay for the visits; but he tendered the amount of the medicines, at the apothecaries' usual price. The practitioner persisted in demanding the whole sum, and, on this, issue was joined.

Lord Tenterden, before whom the cause was tried, was of opinion, that on every ground of reason and justice,—for the respectability of the profession and the safety of the patient,—the medical man was entitled not only to charge for the drugs he might have occasion to use, but to demand a fair remuneration for the

employment of his time and the exercise of his skill: and the jury gave a verdict for the plaintiff to the whole amount.

The importance of this decision is duly appreciated by the general practitioner; not as increasing his emolument, for in the majority of cases that will scarcely be affected, but as relieving him from many a source of annoyance and self-degradation; as giving a new character to his profession, and elevating him to a desirable and deserved rank in society.

The veterinary surgeon, although an inferior member, yet a member of the medical profession, is deeply interested in this decision. He, too, is, of necessity, a general practitioner, for there is and can be no distinction of surgeon and apothecary among us; and there is reason to hope that the dictum of the judge and the verdict of the jury would fully reach him.

What is the usual nature and character of the veterinarian's practice? He is consulted respecting a horse supposed to labour under some disease. He has one, two, or three miles to travel to see him. He finds, on examination, that a physic or diuretic ball, with a little rest, and a few mashies, are all that is required to restore the animal to health and work. But will the price of this ball fairly remunerate him for his trouble? Could he even get bread for his family? What is the most conscientious practitioner to do? He has a right to obtain a just equivalent for his attention and advice, and how must he obtain it? Not by doing anything to injure or torture the poor animal, but by sending more medicine than was wanted, and by doing several little things that might as well be let alone. What is the consequence of this? The owner sometimes begins to suspect that he is making a job of the business; and he becomes discontented, and is loth to employ the surgeon another time, and who thus suffers both in reputation and profit.

His bill—what is it?—why a very fair one in amount; scarcely a compensation,—not a compensation for his labour and anxiety: but its items are composed of moving of plugs, and dressing of blisters, and rubbing in of oils, and administering of clysters, and balls, and drenches, and lotions, and many such like things, savouring of the old farrier's school, and fatal to the respectable character we would assume, and to the assumption of which we are entitled.

There are certain broad lines which mark the various grades of society, and custom has stamped them with authority. This retail way of conducting our profession,—these worse than chandler's shop accounts, must necessarily exclude us from the circle in which we aspire to move; or if, by courtesy, a few of us should be suffered to cross the line, unusual private worth, or literary or scientific attainments, must be our passport, and that of most precarious tenure and value.

The medical profession was the last that was recognised. At this, considering the history of early times, and the character of the early practitioners, we scarcely wonder: nor, perhaps, ought we to wonder or complain that its advance in public estimation has been so slow. The higher branches of the medical profession have now, however, been enabled to vindicate their just and natural claims. If they have not a legal title to an adequate honorarium for the exertion of their skill, common consent, more powerful than any written law, has secured it them; and common consent has likewise sanctioned their demand to mingle with the noblest of the land.

The inferior branches of the clerical and legal professions have long reposed under the protection of the legislature, and of common opinion. To the clergyman a vested property has been assigned, of which neglect of duty can scarcely deprive him. The solicitor may demand his fee for every visit, and for the most trifling advice. Their subsistence is grounded on, or connected

with, the exercise of their intellectual and moral powers; but the general practitioner was the tradesman still: neither law nor custom would grant him aught beyond what he could demand as a retailer of drugs; and both united to trample upon him and degrade him. They made him what he was, and then condemned and punished him for being what they had made him.

To us, poor veterinary surgeons, from our later emergence from absolute barbarism, and the nature of a portion of our practice, and the scandalous imperfection of our education, and the rooted and too-well-founded prejudices of the community, all this more powerfully and more painfully applies; but the decision in the case of *Handley v. Henson*, so important to the general practitioner, gives us likewise the opportunity of liberating ourselves from this thralldom, and that worst thralldom of all, a consciousness of self-degradation. Several respectable practitioners have attempted it again and again. The accounts which they have delivered to their employers have borne considerable resemblance to that of Mr. Handley, or have been drawn up in a more summary, and a better way; but these spirited individuals have been so opposed by the practice of the generality of their brethren, and the prejudice and want of principle of some of those on whose animals they practised, and the absence of legal authority in their favour, that they have been obliged, in a considerable degree, to modify, or rather to nullify their plan, and, in some instances, to abandon it altogether.

An opportunity now offers for the profession, by general consent, and one simultaneous effort, to rid themselves of this source of debasement. Why may not the veterinary surgeon's claim, in future, run thus, "For medical attendance on such a case, from such to such a date?" Then the sum,—shall it be arbitrary, or depend on the whim and caprice of the moment? No—while we do justice to ourselves let us not be unjust to others. At the beginning of our ledgers, or in some place, or under some form accessible to our employers, let us have a scale of charges for visits according to the distance, or time occupied, and for operations, and manipulations, and medicines of all kinds: let an account be entered in our day-book of all that we do; and then let the sum appended to our demand be the actual sum of what we have done, and, as nearly as possible, the sum which we are accustomed to charge in our present despicable way of doing business. We should then have the satisfaction of acting honourably towards others, while we vindicated our own honour; and we should have a ready answer to give, a ready justification to plead, in those cases which too frequently happen to the most scrupulous among us—they who have benefitted by our skill afterwards refusing adequately to remunerate it.

We throw out these hints for the consideration of our brethren. We have been strenuous advocates for reform in veterinary education; and we now point out a way in which veterinary practice may likewise be reformed. By their joint influence we might sooner, and more generally, occupy our proper rank in society: but this we shall never do while we are sent into practice unprepared and untaught; and by this vile system of charging for balls, and drenches, and dressings, are voluntarily and obstinately degrading ourselves.

"Culpā suā damnum sentiens, non intelligitur damnum pati."

Parasitic mange has broken out in the City of Aberdeen, and the Bills and Law Committee of the Town Council have recommended that early notification of all suspicious cases be made, and have instructed Mr. Marshall, the burgh veterinary surgeon, to take the necessary steps to have the disease kept in check or eradicated as soon as possible.

#### NORTH OF IRELAND VETERINARY MEDICAL ASSOCIATION. (NATIONAL V.M.A.—IRISH BRANCH).

##### MINISTRY OF HEALTH BILL, AS APPLIED TO IRELAND.

Owing to the urgency and importance of this matter the president, Mr. J. Ewing Johnston, M.B.E., M.R.C.V.S., considered it necessary to call a special meeting of Council on 3rd March, to consider the advisability of sending a deputation to the House of Commons to interview members previous to the Committee stage of this Bill. It was unanimously decided to do so, and to submit the decision to a general meeting, which was held on the 10th March. At this meeting, which was well attended by members, the action of the Council was enthusiastically endorsed, and Messrs J. Ewing Johnston M.B.E., M.R.C.V.S., and J. A. Jordan, M.R.C.V.S., were requested to proceed to the House of Commons at the earliest possible moment, as they were informed the Standing Committee entrusted with this Bill was to have their first meeting on Wednesday, 12th March.

In view of this urgency the deputation left on the night of the 10th March, and the following day interviewed the members in the House. The Ulster Party were most sympathetic, and those who were members of the Standing Committee especially Mr. McGuffin, M.P. for Shankill Division Belfast, voiced the claims of our profession.

The following, as it appeared in Hansard on the 13th, and 27th March, gives a full report of the proceedings.

Mr. MCGUFFIN: Will the words "engaged in" apply to veterinary inspectors, who inspect cow sheds and the condition of milk cows? The production of milk is a very serious matter in reference to safeguarding against disease.

Dr. ADDISON: This deals purely with training and educational matters. The function of veterinary surgeons in connection with the administration of Acts of Parliament is an important measure which will arise when we are considering what would be the extension of the health service, but is quite a separate matter from the functions of the Central Department. Here we are dealing with the cognisance which the Department is expected to take of the training of persons who will be employed on health service, such as midwives, nurses, etc., so that the other matter does not now arise.

Mr. MCGUFFIN: Is it intended that they will have such powers?

Dr. ADDISON: There are so many big questions of health administration in connection with milk and many other matters, which I think would be properly dealt with when we have specific proposals, which we shall have in the near future, put before Parliament in connection with the development of our various health services, that I do not think I could usefully say anything on the general question raised here. This relates merely to the duties of the Ministry in taking cognisance of training. I am in thorough sympathy with the general purpose of the hon. member, but if once we embark on discussing individual health services and their local administration we shall get outside the intention of this Clause.

Mr. MCGUFFIN: I am not often in the absolute unanimity with the Hon. Member for the Falls Division of Belfast (Mr. Devlin) in which I find myself this morning. I am persuaded that if Ireland had full representation in the House of Commons it might have had a separate Bill. Though legislation by bits is unsatisfactory, at the same time I cannot see why Ireland is not regarded as a special entity in this case, with a Bill specially devoted to itself. The Clause says "Six other persons having practical experience of matters relating

or incidental to." What interests or institutions they are to represent is the difficulty at the moment, and I do not think the Attorney-General so far has been very sympathetic with regard to that. I am sure that the industrial classes should have representation. The time has come when the industrial classes, whose children this Bill is specially set up to protect, will insist on having adequate representation on any body that is going to be appointed. There are many representative organisations of labour in connection with Ireland that might fairly claim to have representation.

There is a matter I raised before in Committee, and on which I was ruled out of order, and that is the question of Veterinary Surgeons. In my opinion they are a very important body, and a professional body whose status cannot be ignored in this matter. We all feel that the very bedrock of this question is the question of milk, and I think no men are more competent to deal with this matter than the veterinary surgeons. I would like, therefore, to have some assurance that, in the selection of this body, men whose judgment and experience are so necessary in guiding us in this matter should not be overlooked, and that adequate recognition should be given to the Irish Veterinary Association. It would be their duty to inspect the cattle for tubercular cases, and to see that the milk itself was free from those germs which are so insidious, and, in many cases, detrimental to the health of the people. I would press upon the Attorney-General the desirability of giving us an assurance that the representation of these men will not be overlooked in so far as it serves the general public interest. I want to say that I am absolutely in accord with the hon. member for the Falls Division of Belfast in this matter with respect to Ireland, but we feel for the moment that we are on the horns of a dilemma. We were not likely to get a Bill for Ireland at the moment. There was not sufficient pressure to produce influence enough on the Government. I say it with all respect to my hon. friend, we had not sufficient influence to do that. I do very much regret that there has not been a special Bill for Ireland. Had we the pluck and the tenacity of the Scottish race, in all probability we would have got it, but, even if the provisions are of a temporary nature, now that they are to be set up, we are all hopeful that the best result will be achieved, and I am very glad my hon. friend is so much in sympathy with the prosecution of this measure to a successful end.

Mr. SAMUELS: I have to thank the members of the Committee for the reception they have given to our proposal. The suggestions which have fallen from different hon. members will, I am perfectly certain, be carried into effect when we are setting up this Council. My lonely friend from the Falls Division (Mr. Devlin).

Mr. DEVLIN: Not a bit lonely.

Mr. SAMUELS: According to certain representations he made it would appear as if he had no influence. He had a dynamic influence by his amendments on the paper, and certainly we did adopt to a very great extent, and were bound to adopt the very valuable suggestions he made. As pointed out by my hon. and gallant friend (Capt. Craig) it would not be satisfactory to state here the names of the six persons. We want to have a certain elasticity in regard to the composition of the Council, and that is why we have largely, if not mainly, adopted the suggestion of my hon. friend, the member for the Falls Division, to have six instead of three as originally intended. If we give a certain amount of elasticity the suggestions made by the hon. members, and the hon. members for Derbyshire, Edmonton and Leeds, will receive the fullest consideration, and I hope we shall have a full working and satisfactory Council. I think it would be most unsatisfactory to suggest names here or to suggest the representatives of interests. In this respect I would adopt the views of the right hon. gentle-

man (Dr. Addison) who set his face like flint against the representation of any particular interests, because if you do that you will have them round like bees and hornets. I can assure the hon. member for the Shankhill Division that his suggestions will be carefully considered, but I cannot give any undertaking in regard to the matters now."

On the 28th March the deputation submitted their report at a general meeting of the Association, and were highly complimented on the success which attended their efforts. It was considered however, that in order to make it certain it was unanimously resolved.

"That this meeting places on record its application of the action of the Government in introducing the Ministry of Health Bill, and its application to Ireland. Further, having regard to the invaluable assistance heretofore rendered by the members of the veterinary profession to the cause of public health, and to the important part which they must in the future undertake in the matter, would point out the necessity of having the words "and a member of the Royal College of Veterinary Surgeons" added to clause (d) of sub-section 2; and at least one member of the veterinary profession on the Irish Public Health Consultative Council; and this meeting requests the Government to provide in said Bill for such representation.

That copies of this resolution be forwarded to the Prime Minister, Dr. Addison, the Chief Secretary for Ireland, the Attorney-General for Ireland, and the Ulster Members of Parliament."

On 18th April a special meeting of Council was called to arrange for a deputation to wait on the Chief Secretary for Ireland (Rt. Hon. Ian Macpherson, M.P.), and the Attorney-General (Rt. Hon. Arthur Samuel, K.C., M.P.), on the occasion of their visit to Belfast. The following members were appointed:—Mr. J. Ewing Johnston, M.B.E., M.R.C.V.S., Mr. J. A. Jordan, M.R.C.V.S., Mr. J. J. Ross, M.R.C.V.S., Mr. F. W. Emery, F.R.C.V.S., and Mr. T. McGuinness, B.A., M.R.C.V.S.

The City Chamberlain kindly arranged with the Chief Secretary for the reception of the deputation on Thursday 1st May at 12-30 p.m. Accordingly the deputation as above constituted, were introduced by the Lord Mayor.

The Chief Secretary after listening most attentively to our case expressed himself as being in sympathy with our claims, and gave us such assurance that our profession would be recognised in the Bill which he was contemplating introducing at an early date, as to leave no doubt on the minds of all those present that, at least, our profession would yet be placed in that position for which we have been aspiring, and to which we consider we are justly entitled. (See p. 428).

#### NORTH MIDLAND VETERINARY ASSOCIATION

[NATIONAL V.M.A.—NORTHERN BRANCH.]

A meeting was held at the Grand Hotel, Leopold Street, Sheffield, on March 4th. The following members were present Messrs W. Collinson, (President) S. E. Sampson, R. Hudson, S. H. Nixon, W. Murgatroyd, T. C. Fletcher, H. Thompson, and J. S. Lloyd. (Hon. Sec.) Mr. J. Malcolm Armfield, Visitor.

Prior to the meeting the members present were entertained to tea by the Sheffield members.

The minutes of the last quarterly meeting having been published were taken as read, and on the motion of Mr. Hudson and seconded by Mr. Sampson, were confirmed.

The Hon Secretary read the minutes of the Council meeting held on February 18th, and on the motion of Mr. Hudson and seconded by Mr. Murgatroyd, were adopted.



Mr. SAMPSON, President of the Yorkshire Veterinary Society, stated that he had brought to the notice of that Society a circular letter on veterinary examination fees for insurance companies, issued by the North Midland Veterinary Association, which met with the approval of the Yorkshire Society members with one exception—they thought 1/3d. per mile after a distance of two miles should be charged, instead of 6d. per mile after three miles as stated in the circular. The members present did not agree to this, especially as it was understood that the insurance companies objected to paying any mileage at all.

The Hon. Treasurer submitted a balance sheet for the year 1918. On the proposal of Mr. Fletcher, seconded by Mr. Hudson, this was passed. The Hon. Treasurer commented on the fact that the balance in the bank had been increased from £31 0 0 to £37 10 0 although the subscriptions were considerably cut down, owing to the absence of several members serving with the Army abroad whose subscriptions during the period of war had not been collected.

The PRESIDENT stated that owing to calls upon his time he had not been able to present an address in writing. He wished to thank the members for the honour of re-electing him president, and was particularly pleased to be president in the year when, he had no doubt, peace would be declared. He hoped during his year of office to welcome Army Veterinary Surgeons returning from the war, and trusted they would turn up at the meetings, and be able to give some interesting information to members who had not been fortunate enough to serve. He saw no reason why veterinary surgeons should be downhearted for he thought the greatly increased value of farm stock would call for increased services by veterinary surgeons. Professional fees had been considered by this Association, and increases agreed upon. He thought suggestions from other Associations should be put into the veterinary press, and that steps should be taken to make non-members of Veterinary Associations fall in line.

He drew attention to the great increase in parasitic mange in this country, and thought it probably due to infection from Army horses, mostly, in his opinion, from home units. Horses returned from overseas would also probably bring other diseases, and that would of course increase the work of veterinary surgeons.

He informed the meeting that a conference of West Riding veterinary surgeons was being held shortly at the County Hall, Wakefield, for the purpose of giving information as to treatment, isolation and disinfection in connection with outbreaks of parasitic mange. He was pleased this meeting was being called as it showed that veterinary surgeons were being looked to for advice, and he trusted that a successful issue would result from the conference.

He again thanked the members for his re-election and requested the members to freely discuss any matters mentioned in his address.

Mr. T.C. FLETCHER said he was pleased Mr. Collinson was President in Armistice and Peace years. He wished peace had come in his own year of occupation of the presidential chair.

It was not his opinion that army horses had spread parasitic mange in Sheffield. He was pleased the question of fees had been taken up by the Veterinary Associations in Yorkshire and Derbyshire, and hoped other associations would do likewise. He hoped papers would be brought before the association on current subjects, such as joint-ill in the foaling season. It was very little use discussing specific diseases unless they were prevalent at the time of discussion, when matters relating thereto were fresh in the memories of the members discussing the subject. Methods of treatment as well as experience should be given on this and other seasonal ailments.

Mr. HUDSON said he had a surprisingly small number of parasitic mange cases due to army origin. He thanked Mr. Collinson for taking the chair for another year, and hoped he would have a successful year of office.

Mr. COLLINSON said he had seen outbreaks of parasitic mange on farms when nag horses had recently been brought on to the farm, and thought that it was unusual for mange to break out amongst working farm horses except when it was carried to the farm in the manner indicated. He thought the farmer's nag horse was stabled at Market Inns in stables where horses recently purchased from the Army, and horses of small dealers and wagonette proprietors had been recently stabled. The nag horse in this way caught the disease and carried it to the farm. He thought the use of wood stables greatly increased the probability of infection, for it is almost impossible to thoroughly disinfect such buildings. He also considered that in outbreaks of parasitic mange it is essential that all harness, utensils, etc., should be thoroughly disinfected, or further outbreaks of the disease would take place.

Mr. SAMPSON wished to thank Mr. Collinson for his address and for taking the presidential chair. He thought the increase of parasitic mange was to a considerable extent due to bad grooming, which was aggravated by a shortage of labour and inefficiency on the part of carters. He also thought that the blacksmith's shop and the shoeing smith were probable means of conveying parasitic mange from one horse to another. He thought blacksmiths' aprons and rugs at shoeing forges, and the forges themselves, should be periodically thoroughly disinfected.

He suggested that during the coming summer joint meetings of the Yorkshire, Derbyshire and North Midland Veterinary Societies should be held. He thought that discussion on such matters as veterinary fees at joint meetings would be beneficial and that unanimity would be gained better than by holding separate meetings.

Mr. MURGATROYD stated that he had met with parasitic mange in several army horses a year or two ago. He stated that he had seen it mentioned in a lay-paper that a prominent member of the veterinary profession had stated that a horse can be dressed for parasitic mange at a cost of 2d per dressing, and he had been requested by at least one of his clients to make the same charge. He thought it was a pity that such a statement should have been made and allowed to go out to the lay-press.

In connection with the treatment of parasitic mange Mr. Hudson thought that steps should be taken to prevent quacks from carrying out the treatment, but that it should be confined to veterinary surgeons.

The Hon. SEC. stated that treatment in his opinion was often ineffectual in obtaining a complete cure for parasitic mange because the necessary steps were not taken for removing the hair and thoroughly cleansing the skin of the animal before the dressing was applied. He was also of opinion that method was required in dressing the animal just as it was required in disinfecting the stable. His instructions in connection with the latter were always to have the under-parts of the manger and other inaccessible places thoroughly washed and disinfected before the other parts were attended to. In the same way he thought that the under portion of the horse's body should be dressed before the dressing was applied to the back, loins, and upper parts of the body. Where the latter were attended to first, it was his experience that the under portions got neglected. He also mentioned that isolation was not so strictly enforced under the Parasitic Mange Amendment Order, and stated that his experience in this respect was that if a man was able to work his horse he was not so likely to

dress it regularly as he would if he was forced to effect a cure before the horse could be taken out and worked.

Many members mentioned the difficulty in obtaining specimens of the Itch mite from animals affected, and in this connection Mr. Hudson stated that he took the scrapings, put them in warm water and washing soda, keeping the solution warm for several hours. He then put the sediment between slides and examined with the microscope, usually with success.

Mr. THOMPSON stated that on several occasions he had found the mites by the following simple method. He took the scrapings, put them in an ordinary glass bottle, which he afterwards corked and kept warm for some time. This in many instances could be done by simply placing the bottle in the waistcoat pocket and carrying it about with him. The mites could then often be seen moving up the glass.

#### MASTITIS IN THE COW.

Mr. HUDSON opened a discussion. He said :—

When asked at the last meeting to open a discussion on Mastitis of the Cow, introducing some of the prominent features from the book on that disease by Sven Wall, I did not think my task would be very difficult. Expecting to find original matter, I thought it would be easy to pick it out and place it before you for discussion, but, so far as Mastitis—leaving out Tuberculosis and Actinomycosis, is concerned, I regret to say that I found very little that would further our knowledge of the disease or help in its prevention and treatment.

After dealing briefly with the anatomy and physiology of the udder, the author describes the udder disease which we call Mammitis or Mastitis, under the heading Infectious Mastitis, thus regarding all cases as due to the introduction of some organism.

Infectious Mastitis he divides into Parenchymatous Mastitis—that in which the teat duct, sinus, gland ducts, and epithelium are involved. Interstitial Mastitis—when the connective tissue lying between the secretory ducts, cells and alveoli are involved.

Interstitial he further sub-divides into Acute and Chronic.

He then goes on to describe at some length Mastitis as produced by particular micro-organisms,—Streptococcus Mastitis, Staphylococcus Mastitis, Coli-bacillus Mastitis, Pyo bacillus Mastitis.

It is better, I think, to disregard the division of Parenchymatous and Interstitial, and base our study of the disease on the particular organism which may have brought it about. I cannot picture in my mind ever seeing a case where I could determine either condition existing alone, and certainly not where any of the organisms the author mentions were present: and on reading through the text I have difficulty in seeing clearly that the author has found them as well defined, separate conditions.

The presence in the milk of the udder of any of the organisms mentioned, would, under suitable conditions, soon set up an inflammation, rapidly spreading through the epithelium to the surrounding connective tissue.

*Sources of Infection.* The author appears to take the view that the milk in an apparently healthy udder is always germ free; though later on (page 66) he contradicts himself by mentioning that he found streptococci in what appeared to be normal milk.

The translator introduces a statement by Ward that the healthy udder harbours bacteria throughout the whole of its extent. I think that we are bound to accept that statement because it is generally held to be true by many bacteriologists.

The ports by which organisms gain entrance, the author considers, are openings into the udder,—teat orifice and wounds, and the blood.

The factors predisposing to a teat infection are dropping of milk from the udder when overdistended, and the author considers that a rapidly growing or mobile organism could so infect the whole of the milk in the udder. Age and chills, he thinks, paralyse the sphincter muscle and so allow the organism to penetrate. Introduction by tubes and straws by attendant, and straws penetrating when lying down he also mentions.

The author considers that an organism might grow its way along the teat duct if it is virulent enough to exert a negative chemiotactic action on the leucocytes in the duct, and thinks this explains the distinctly contagious character of many cases of Mastitis.

*Udder Wounds.* Mastitis resulting from these require no comment and can be passed over.

*The blood as a port of Infection.* The author considers that organisms may be arrested in the udder when circulating in the blood stream, either free or carried by leucocytes, the latter dying and leaving the organism to carry on and multiply.

I have often thought that this mode of infection might take place in those cases which are so common where septic conditions of the womb exist, for in such cases it is difficult to imagine the blood being germ-free, also it is evident the blood does carry germs from the womb—as shown by joint and tendon infection, lung infection, sub-dermal infection. Whatever the particular organism may be, it does not appear possible to determine clinically what symptoms it sets up in the udder, so that the microscope would have to decide. The author mentions experiments in which he injected organisms, but the results are no use for diagnostic purposes.

#### TREATMENT.

Under Strepto-mycosis the author mentions for the treatment of general conditions :—Camphor in V grain doses, because it is excreted in the milk (V grain probably means V grammes). Antifebrin because it does not taste in milk. Glaubers salts.

For local conditions—milking out and injecting 300-500 c.c. of lukewarm, boiled 4% boric acid solution, the solution remaining for about four hours.

Rubbing in a concentrated solution of Iodine as a mild irritant for a day or two.

Drawing the udder twice daily, but not oftener, so that the udder may rest.

If the condition is obstinate, the inflation with air inhibits the growth of bacteria. One may combine boric acid solution and air.

Cutting off the teat. Deep firing. Operative removal of sequestra.

Mr. SAMPSON considered that the pathology of these cases was not properly understood, as many of them had not responded satisfactorily to the treatment generally adopted. He would like to be able to treat infectious cases of Mastitis by the use of vaccines or Polyvalent serum.

Mr. COLLINSON had tried a vaccine prepared by taking one part of the disease discharge and three of normal saline solution. This was treated by warmth, filtered and sterilized for ten minutes. He afterwards injected 10 c.c. hypodermically once daily for three or four injections. He thought the injection of filtered air, especially disinfected by the use of eucalyptus, would be beneficial. He did not put much faith in amputation of the teat, for the opening to the udder soon became choked up by the drying of the discharge.

Mr. FLETCHER thanked Mr. Hudson for introducing the subject. This disease was very rife in his practice last season, in August and September. He considered "August bags" arose from changes in the milk in the

udder due to hot weather. The disease was usually found in "lying off" cows. He would very much like to see some successful measures brought forward, both for cure and prevention. He wondered whether a seal on the end of the teat would be of value, or if the change *was* really due to the heat in the milk in the udder. Infection by the blood stream was an interesting method of infection, but he did not remember a case of such occurring from disease of the womb. He thought the mammary lymphatic glands would act as a filter. He thought some means of prevention would really be of more service to the owners of cattle than methods of cure.

Mr. HUDSON thought that if a mixed vaccine was prepared from a special case and injected into the teats of "lying off" cows subject to infection, prevention would probably be successful.

For treatment I have used an autogenous vaccine prepared as follows:—Take a quantity of material from the udder of an infected cow, and add four times the quantity of normal saline solution. Shake well and incubate for twelve hours at a temperature of 100 to 110 deg. Fah. Sterilize by boiling on the water bath for ten minutes, and filter through cotton wool put at the bottom of a 2 oz. syringe, making up any loss by an addition of normal saline solution. Add 5 minims of carbolic acid to keep the vaccine.

*Dose.* 10 c.c. daily injected into the skin at the front of the udder.

It is probable that better results would be given if the dose was gradually increased, but how much increase I cannot say, not having had sufficient experience.

I think that if some treatment were carried out on these lines by members of the Society, and the results compared, we should have better data to base our line of treatment on. If members care to send me materials from diseased udders I will prepare the vaccine and return it to them for use.

Mr. THOMPSON thought that such a vaccine could be prepared at the Pathological laboratory at the Sheffield University, and suggested that steps should be taken by the Association to get into touch with the professor in charge of the laboratory to see if he could assist the members of the Association in this matter.

The meeting concluded by a vote of thanks to the President for his conduct in the chair.

J. S. LLOYD, Hon. Sec.

ROYAL COUNTIES  
VETERINARY MEDICAL ASSOCIATION.  
[NATIONAL V.M.A.—SOUTHERN BRANCH.]

At a General Meeting held at the Laboratories of the Board of Agriculture and Fisheries at New Haw, Weybridge, on Friday May 2nd, the President, G. P. Male, Esq., in the chair, there were also present, Messrs. A. E. Willett, J. W. Willett, Sydney H. Slocock, Esmond Brown, P. J. Simpson, (Major R.A.V.C.), G. Rees-Mogg, (Major R.A.V.C.), J. Willett (Treasurer), H. A. MacCormack, J. W. McIntosh, J. H. Parker, Sir S. Stockman, Messrs. J. C. Coleman (Secretary), and G. E. King.

Visitors: Messrs. M. J. Reidy, D. Starkey, G. A. Koch, H. Gooch, E. L. Lloyd, W. G. Wragg, F. S. H. Fores, O. Knight and A. Norman.

Minutes of last meeting were taken as read and confirmed.

The Secretary read a letter from the Derbyshire Veterinary Association; also one from Live Stock Offices Association, re V. S. fees; and an acknowledgement from Secretary R.C.V.S. of the resolution sent by this Association at its last meeting.

The CHAIRMAN: At our last meeting Mr Willett was appointed a representative to discuss the fees paid by insurance companies. Perhaps we had better take this letter first. Are there any observations on the letter from the Derbyshire Association?

Mr. WILLETT: I quite agree with the last part if it is possible to have the fee, but I think the other part is rather impracticable. Judges usually do not receive a fee, but they usually have their expenses paid.

The CHAIRMAN: I think it should be left to the veterinary surgeon himself to decide. Then there is the question of the veterinary surgeon who refuses to officiate. It would be very difficult to abolish. Perhaps the best way will be to acknowledge the letter with thanks.

Mr. WILLETT: And that this Association does not see its way to express its opinion in the matter. Personally, I think it is rather showing the white feather. It will not stop the patent medicine vendor being there. It is perfectly certain they will not lose their revenue. I think we as sportsmen should come forward to help shows, and help agriculture and the horse breeding industry generally, and I think it would look rather bad if the profession struck against doing its work unless they were paid, and, as Mr. Male says, judges come forward, and I do not see why veterinary surgeons should not. Perhaps the best way will be to acknowledge the letter and take no action. This was seconded and carried.

The CHAIRMAN: At the last meeting, if you remember, we discussed a letter from Mr. Adams on the re-adjustment of fees for the examination of horses for insurance. I wrote to the Committee concerned and we appointed Mr. Willett to represent us. (The Secretary read the reply.)

The CHAIRMAN: We have had a letter sent up with regard to the Milk Bill. Evidently the Council are taking the matter in hand, and although the Committee which was appointed to deal with the Milk Bill did not meet, another committee was formed.

The SECRETARY: I received a letter from the Sanitary Institute asking us to appoint a delegate to the Congress which will meet from July 28th to August 4th. It was too late to put on the Agenda.

The CHAIRMAN: Is it your wish that we appoint a delegate to the Congress of the Royal Sanitary Institute. Now that they have started again is it your wish to appoint one or two.

The SECRETARY: It is rather important just now that we should have delegates.

Mr. WILLETT: Our debates have always been relegated to the last day and any recommendations to the Congress have thus been of little use. I think we should make ourselves felt, and if we do make recommendations they should certainly receive consideration, and not be dealt with as I was when I represented the Central at Cardiff. Other delegates have had the same experience as I had—that our recommendations have been too late.

The CHAIRMAN: I see there is a conference of veterinary surgeons. Newcastle-on-Tyne is rather a long way, and expensive. I think we should ask the Sanitary Institute for some assurance that it is not to be relegated to the last day. They don't do much for us. I think we should hold our own in the matter and enter a protest against being served as we have been served in the past.

Mr. WILLETT: I think we might with advantage ask what arrangements will be made if we go; and we might provisionally appoint a delegate. I propose we provisionally appoint the President to represent us.

The CHAIRMAN: I was the delegate to the last Congress at Blackpool, and I think it is only right that someone else should go this time. I should like to propose Major Simpson, he is a man of some leisure and great ability.

Major SIMPSON: I think you ought to have someone more in touch with veterinary matters.

Mr. WILLETT: It has been proposed that the Chairman represent us. (Carried.)

Mr. WILLETT: As to the fees allowed. I take it the Society pays the expenses—probably two days will be sufficient. At any rate none of the previous delegates have put in very much for their expenses. It is therefore an instruction to the Secretary to write to the Sanitary Institute and ask for information.

The CHAIRMAN: The Secretary will write and ask for information, and express the wish that it is not held on the last day, and any expressions of opinion received will have due consideration. We shall hold a meeting just before, on July 25th, and there will then be time to consider any reply. We shall have to pay the guinea fee, however, which includes a ticket for the conference.

Mr. WILLETT: Leave it to the President and Secretary to decide if the reply is satisfactory. I will send the guinea when I am satisfied that it is in order.

*Nominations.* Mr. WILLETT: I beg to propose my brother.

The CHAIRMAN: Proposed and seconded that Mr. A. Willett be a member of this Association. (Carried.)

*Place of next Meeting.* CHAIRMAN: During the war we have held meetings in Reading. Now we could have a deviation from that, and perhaps have a river meeting at Reading or somewhere on the river.

Mr. WILLETT: Reading is easier for most of us to get away from. We had two very successful river meetings, and the ladies enjoyed them. Perhaps you will leave it to the President, Secretary, and Treasurer to fix it up.

A MEMBER: Don't forget there will be three Peace days in July.

Mr. WILLETT: We can either carry it forward or postpone it a week, so that it does not clash.

The CHAIRMAN: Perhaps it would be as well to have a jollification on one of the Peace days. But if you wish we will put it off to a week before or a week after.

*Defaulters.* Mr. WILLETT: I was instructed to write to two members, one of whom has not paid his entrance fee, and the other his subscription. I wrote to both—one sent a cheque, the other no reply. I take it we have your permission to strike him off.

The CHAIRMAN: According to the rules of the Association, if a member has not paid his entrance fee for six months he ceases to be a member.

Mr. WILLETT: As we are getting back to normal times, have I your permission to bring forward the names of those in arrear up to date—some of the men have been serving.

The CHAIRMAN: Very few veterinary surgeons have as yet been demobilised.

Mr. WILLETT: Is it your wish then to leave them over until the end of 1919.

A MEMBER: Yes.

The CHAIRMAN: In the Report of the Council of the Royal College of Veterinary Surgeons there is a recommendation from the General Purposes Committee that a circular letter be sent to all the local Veterinary Medical Associations. We have not had this letter yet, but by the time we get it, it will be too late to do any good. I thought the matter should be brought up to-day so that we can deal with it in accordance with the wishes of the Royal College in this matter. I take it that it means we should approach Members of Parliament and ask them to help us with regard to representation on this Bill. Perhaps Sir Stewart Stockman will give us his views on the matter.

The meeting resolved itself into Committee to consider this matter.

Upon the meeting being resumed it was resolved, that a resolution be sent to each Veterinary Society, the Board of Agriculture, and the Council of the R.C.V.S.,

upon this subject and the wording of same to be left in the hands of the President, Secretary, and Major Simpson, and the Secretary was instructed to forward the same to above-named bodies.

#### LESIONS IN THE DIAGNOSIS OF SWINE FEVER.

By ESMOND BROWN, M.R.C.V.S. Board of Agriculture.

Mr. President and Gentlemen,—When on Monday evening I received a copy of the agenda of this meeting I discovered that No. 5 was to be a paper on "*Lessons in diagnosis of swine fever.*" Now, the title I thought I had given in my letter to our Secretary was "*Lesions in the diagnosis of swine fever.*" No doubt the defects of my handwriting are responsible for the variation, and I hope that you do not suspect me of claiming the right to stand up before you as a pedagogue whose object is to deal out instruction.

It is not my intention to teach. Swine fever *has* taught me one lesson, and that is that it is not wise to be dogmatic over the questions of its diagnosis.

Any member of our profession who has, as part of his work, to deal with the diagnosis of swine fever is at times inclined to doubt whether the lesions are really very reliable guides. He gets cases where he finds lesions which appear characteristic, but where other evidence is against swine fever being present. At other times he finds all the other characteristics of swine fever, but no typical lesions. The discovery that in swine fever the actual element of contagion is an ultraviolet virus, and the relegation to a secondary position of the swine fever bacillus, or *Bacillus cholera suis*, naturally raised doubts as to whether the lesions were as reliable a factor in diagnosis as had previously been thought. In formal discussion, at any rate, the suggestion is sometimes thrown out that the value of the lesions in diagnosis is very much weakened, because of the possible existence of agents other than the ultra-visible virus which will prepare the ground, so to speak, for the swine fever bacillus to get to work.

In spite of these doubts, the consideration of large numbers of outbreaks of disease in swine, occurring over long periods and under diverse conditions, and the consideration also of the results of numerous experiments, has led to the acceptance of the view that there is a specific febrile contagious disease of swine, caused by an ultra-visible virus giving rise to fairly characteristic though varying clinical symptoms, and associated with the formation, in the majority of instances, of recognisable lesions; and further, that the occurrence of such lesions except as the result of an attack of swine fever is so rare that it may be almost disregarded.

The question as to whether the bacillus cholerae suis can set up lesions "on its own," or with the help of anything other than the ultra-visible virus of swine fever, is one for further observation and research, but from the practical point of view for present day diagnosis, I think that it is well not to attach too much importance to it.

The lesions will remain our best guide, in spite of their admitted shortcomings, until something better is given to us in the shape of an easily applied reliable test, and so far as I know nothing practicable in that direction has as yet been formulated. I do not mean to claim that swine fever can invariably be diagnosed by the evidence of lesions alone. In this disease, as in most others, every available relevant factor should be considered before a decision is made.

I will now proceed to a description of the principal lesions associated with swine fever; I shall also refer to a few lesions which have, I believe wrongly, been put forward as supporting a diagnosis of swine fever, and in addition shall call your attention to one or two normal anatomical peculiarities which are occasionally mistaken for swine fever lesions.

In some acute cases of swine fever the lesions are of a very vague character, and possess small diagnostic value. There may be little beyond slight congestion of mucous membranes and of some groups of lymphatic glands. Cyanosis of the ears and other parts of the skin is sometimes present without there being any other lesions.

Further up the scale come such lesions as petechial hæmorrhages in various parts of the body, severe congestion of mucous membranes of the stomach and intestines and œdema of the intestines.

The most characteristic lesions of swine fever, however, are the necrotic ones, namely the circumscribed areas of necrosis called swine fever ulcers, and the diphtheritic lesion which appears as a film on the surface of the mucous membrane, the film when detached by washing and manipulation leaving a roughened surface indicating some necrosis of the underlying membrane. I shall further describe these lesions in referring to their regional occurrence beginning with their distribution in the alimentary tract.

An attack of swine fever may lead to ulceration of the tongue, but ulceration of the tongue, though significant if clinical symptoms of swine fever are present, is not in itself very valuable evidence.

The mucous membrane of the pharynx frequently shows signs of ulceration, as also does that of the stomach. Ulceration of these parts may be due to swine fever, but I believe that as often as not it may be produced by other causes, and ulcerative lesions of these parts have about the same value for diagnosis as ulceration of the tongue.

The mucous membrane of the stomach often shows congestion. A certain degree of congestion of this membrane may be physiological, and due to digestive activities provoked by the presence of food.

Other common changes to the stomach are acute or chronic gastritis, shallow erosions of the mucous membrane, diphtheresis and ulceration as previously mentioned. Sometimes there are round button ulcers which are indistinguishable in appearance from those found in the large intestines in typical cases of swine fever. This last type of stomach ulceration I admit carries some weight, but on the whole it is well to beware of exaggerating the importance of stomach lesions in summing up the evidence for diagnosis. The stomach particularly is liable to inflammation and ulceration arising from causes other than swine fever.

Passing from the stomach to the small intestines, it should be noted that the opening of the bile duct into the duodenum may be expected to be found an inch or so away from the pylorus. The opening of the bile duct is large enough to stand the insertion of an ordinary match-stick, and more than once a match-stick has been inserted into the opening in order to indicate it as a swine fever ulcer. I must hasten to add that that error is not of common occurrence nowadays, any more than is the mistake of calling the continuation of the œsophageal mucous membrane over part of the gastric surface a swine fever diphtheresis, but as both these errors have at times been made I mention them as interesting curiosities rather than as being of serious import.

The mucous membrane of any part of the stomach and intestines may be bile-stained, but bile-staining is readily distinguishable from ulceration and diphtheresis by the fact that the structures of the membranes are intact and visible.

Genuine swine fever lesions in the small intestines are fairly common, especially in the last few feet of the ileum, and the large Peyer's patch in that position is frequently the seat of diphtheritic and ulcerative changes. Discrete ulceration is not so common in the small intestines as diphtheresis and necrosis affecting practically the whole of the mucous membrane of considerable lengths of the bowel.

There is a condition of the small intestine, *not* due to swine fever, which results in very great thickening of the bowel, but this thickening, instead of affecting principally the mucous and submucous coats as in swine fever lesions, is found to be in the muscular layers of the bowel wall. It is as though the muscular tissue has become hypertrophied in the attempt to overcome some obstruction further down. Usually the thickening terminates rather abruptly, and beyond the thickened portion the bowel wall may be thinner than normal, and showing perhaps a patch of necrosis of the mucous membrane accompanied by localised peritonitis. Sometimes there is actual perforation of the bowel wall at this point with escape of ingesta into the peritoneal cavity. This condition is not at all rare, it is probably due to some form of mechanical injury, and some cases at least appear to be due to injury to the bowel done during the performance of the operation of spaying.

Necrotic lesions, not due to swine fever, may be present in the small intestine as a result of umbilical or scrotal hernia with strangulation. The cause of such lesions ought to be apparent to anyone making the post-mortem examination, and the evidence of peritonitis is to be noticed both before and after the intestine has been removed from the body.

As a general rule, necrotic lesions of the intestines, when accompanied by peritonitis, do not point to the presence of swine fever, though exceptionally very severe chronic lesions of swine fever may eventually cause peritonitis by extending through the coats of the bowel to the peritoneal surface.

Intussusception of the bowel may be mentioned as causing necrosis—I should hardly call this, or eversion of the rectum, a swine fever lesion, but both these seem to crop up with fair frequency amongst pigs when other evidence shows clearly that swine fever exists, and the most obvious reason for this is that the disturbed state of the intestine due to swine fever favours intussusception and eversion.

I must now leave the small intestine and take up the catalogue of lesions as they appear in the large bowel. The ileo-cæcal valve, the cæcum itself, and the first part of the colon are the favourite seats of swine fever lesions, and it is here that the most satisfactory post mortem evidence of swine fever is to be looked for.

Besides the usual acute lesions, congestion, and petechial hæmorrhages, one may come across larger submucous hæmorrhages up to half-an-inch or more across, circular in outline, and these hæmorrhages may show considerable depth or thickness. In some instances such comparatively large submucous hæmorrhages are fairly numerous, and often some necrosis or diphtheresis may be found on their surface. It is likely that such hæmorrhages would have developed into typical circular ulcers if the subject had lived longer.

œdema of the wall of the cæcum and part of the colon is a common lesion of swine fever, and I think that it is, next to typical ulceration and diphtheresis, of the highest diagnostic value. When I claim this I do not refer to slight œdema, but to a condition in which the thickness of the bowel wall is increased to many times the normal, and in which the jelly-like œdematous tissue fairly quivers on the piece of bowel being taken in the hands and shaken. This severe œdema is more often found in large and middle-sized pigs than in very small ones, usually signifies a virulent type of swine fever, and in some series of connected outbreaks it is the most constant lesion; sometimes as the only change present and at other times accompanied by hæmorrhages and ulceration.

Swine fever ulceration of the large intestine may give rise to a variety of appearances. The ulcers usually regarded as most typical are those with a circular outline. These may be of any size up to that of half-a-crown;

exceptionally, a regular circular ulcer up to the size of a five shilling piece may be found. The surface of the necrotic tissue is generally raised above the level of the surrounding mucous membrane, and it often shows concentric sizes. The colour may be anything from dirty white or yellow to greenish or brownish black. If the animal lives long enough the necrotic tissue starts to separate from the normal at the edge, leaving a slight gap. Then the necrotic portion or button is shed and cicatrization of the ulcer takes place. The surface of the ulcer is then below that of the surrounding membrane and the cicatricial tissue contracting, the normal membrane becomes drawn in a little sometimes irregularly, presenting a puckered appearance. The depression may become entirely obliterated by the formation of the cicatricial tissue, but the cicatrix can be detected by the fact that the intestinal glands are not replaced and by the surface of the scar giving a harsh impression on palpation. It has not the velvety feel of normal mucous membrane. Often the scar tissue shows a great tendency to crack when the bowel is manipulated on post mortem.

Other shapes besides the circular are often found. At the edge of the ileo-caecal valve crescentic ulcers are quite common, and irregular ulcers of all sizes may be present in the caecum and colon. Sometimes the surface layers of the mucous membrane become necrotic over almost the whole area of the caecum and a good deal of the colon. Amongst this extensive necrosis, circular or irregular islands of normal membrane may be seen. If the necrotic tissue is shed and cicatrization takes place, these islands appear as elevations surrounded by scar tissues.

Sometimes the changes, although spread over a wide surface do not result in a wholesale necrosis and shedding, but lead to a thickening and corrugation of the mucous membrane, with necrotic points and streaks which may become cicatrized. The appearance in some instances may be compared with that of the bovine intestine in a case of John's disease, though the corrugations in swine fever are usually coarser.

Sometimes the principal lesion of swine fever present is a shallow ulceration, a thin layer of necrotic tissue having been shed. Often this shallow ulceration is extensive, is irregular in outline, and may show at the junction with the normal membrane a distinct black line. This type is often referred to as "black edged ulceration."

*Diphtheresis* may be found in any part of the caecum and colon, and often affects several feet of the intestine. In many cases it is present in the caecum, then eighteen inches or so of the colon are free, and following this clear interval a length of colon shows pronounced diphtheresis. Sometimes the only gross lesions of swine fever present is diphtheresis of the middle loops of the colon.

Adherent bowel contents may at first sight look like a diphtheresis, but, after washing, the material comes away more easily than a swine fever diphtheresis, and the underlying membrane, though it may be mottled through irregular pressure, does not show abrasions or necrosis.

There is a lesion of the large intestine sometimes called "chamois gut," which may involve several feet of the bowel. The wall of the intestine is rather thinner than normal, the inner surface is dirty yellow in colour, and is harsh and leathery in appearance. In places there may be evidence of a deeper necrosis. I am not certain as to what position this lesion should take in the diagnosis of swine fever. I have known it to occur when other evidence of the existence of swine fever has been lacking, and when subsequent enquiries at intervals over several weeks have failed to bring to light any further evidence. On the other hand it sometimes turns up in outbreaks where there is more typical evidence of the existence of swine fever. It is perhaps a lesion which

should always arouse suspicion, but one which does not justify a positive diagnosis unless the supporting evidence is strong.

#### SWINE ERYSIPELAS.

An attack of swine erysipelas may produce a kind of diphtheresis.

This usually has a smooth surface, and is bright in colour, and the mucous membrane looks as though it had been smeared with yellow or green oil paint.

The question of the existence of swine erysipelas may be settled by laboratory methods, but apart from that the usual lesions of swine erysipelas may be found elsewhere than in the bowels. If there is other evidence of the existence of swine erysipelas the appearance which I have just mentioned should be looked upon as furthering a diagnosis of erysipelas rather than as pointing to swine fever. At the same time, intestinal lesions due to swine erysipelas do undoubtedly add much to the difficulties connected with the diagnosis of swine fever.

I will now take up the question of tubercular ulceration of the intestines. It is sometimes assumed that when a pig is the subject of extensive tuberculosis any intestinal ulceration must be due to tuberculosis and not to swine fever. Sometimes ulceration of the intestine is diagnosed as tubercular on account of the crater-like shape. In individual cases the matter may be settled by bacteriological and histological examination. Bacteriological examination alone may mislead in cases where, apart from the ulceration, there are extensive tubercular lesions of other parts. I shall not go further into the methods by which individual cases may be decided, because this paper is written mainly from the viewpoint of the man who makes post mortem examinations in the field, without elaborate accessories.

Tubercular ulceration of the intestine of the pig is not of common occurrence. Swine fever ulceration is. Tubercular ulcers when present are more likely to be found in the small intestine than the large, while the reverse is true of swine fever ulcers. The crater-like shape of some ulcers may make one think of tuberculosis, but a deep swine fever ulcer, after the greater part of the necrotic tissue has been shed may show a comparable appearance.

I think I have said enough to suggest that when ulcers are present in the large intestine of a pig, even though the animal may show undoubted tubercular lesions elsewhere, it is well not to dismiss the case as one of tuberculosis only without considering very carefully the possibility of the co-existence of swine fever.

I have not much more to say about the caecum and colon, except to mention a few points which should be borne in mind when one is making a post-mortem examination on an animal suspected of being affected with swine fever.

Around the ileo-caecal valve are a number of intestinal glands or follicles opening on to the surface of the mucous membrane. These often become plugged with a cheesy material, and the mouths of the glands with the ends of the plugs showing certainly bear, at first sight, some resemblance to swine fever ulcers. The plugs can, however, be easily pressed out with the thumbs. The gland mouths may then appear rather gaping, but neither the plugs nor the gaping mouths have anything to do with swine fever.

An inch or two away from the ileo-caecal valve are to be found patches of intestinal glands, generally more or less circular in shape, and the patches are usually slightly raised above the surrounding membrane. In cases of swine fever they are often involved in necrotic lesions, but they are not themselves lesions, but normal structures.

Scattered up and down the large intestine are numerous solitary glands or follicles, and these may become



elevated and be plugged with cheesy material in the same way as the larger glands around the ileo-caecal valve, and they are often especially prominent in the latter part of the colon and in the rectum. I do not think there is any association between swine fever and the prominence of these glands.

Occasionally the solitary follicles show a little necrosis around their mouths. This may be due to swine fever, sometimes it is seen in cases of swine erysipelas, but such slight necrosis may occur independently of either disease.

If a pig has been dead for some time before examination is made the mucous membrane of the intestine may be discoloured by post mortem change, and sometimes gas bubbles are formed under the membrane. Allowance should be made for what may have happened after death, when considering the appearance of the intestine.

In many pigs the intestinal mucous membrane is naturally pigmented, but the pigmentation ought not to be mistaken for a swine fever lesion.

I must ask for your forbearance for few moments longer while I mention a few lesions to be found in parts of the body other than the alimentary tract.

Cyanosis of the skin I have already referred to. It is not peculiar to swine fever.

Areas of necrosis may be found in almost any position on the skin. Those which bear most resemblance to swine fever ulcers are usually in the under part of the body, where the skin is thinner. The skin inside the prepuce sometimes shows quite a crop of small ulcers. Skin ulceration may sometimes be due to swine fever, but it has not much diagnostic value.

In acute cases of swine fever there are often petechial hæmorrhages on the epiglottis, in the kidneys, and in some cases in the bladder also.

With regard to hæmorrhages, particularly petechial hæmorrhages of the epiglottis and larger hæmorrhages in the heart wall, it is worth remembering that slaughtered animals may show a few recent hæmorrhages irrespective of any diseased condition, the hæmorrhage occurring in the death throes.

Sub-endocardial hæmorrhages are very commonly to be found in animals slaughtered by bleeding.

Congestion of the lungs, and pneumonia, the latter often of a dry necrotic type, are frequently to be found in pigs affected with swine fever. Necrotic pneumonia should always rouse suspicion, though if a number of pigs are available for post-mortem examination and all show pneumonia of this type without any intestinal lesions it may be safe to assume that swine fever is not present, but even then it is better that any surviving pigs should be kept under observation for a time.

That concludes my account of the lesions. To keep the paper within limits I have had to cut out many details, and it has been impossible to give a description of the appearances of the manifold forms in which swine fever may declare itself in the way of lesions.

My efforts will now be supplemented by a selection of lantern slides prepared by Mr Norman, Chief Laboratory Assistant here. Also, in the Museum, there are a number of preserved, and more or less fresh specimens which will be available for your inspection if there is time after the more formal part of the meeting is over.

At the termination of his paper Mr. Brown gave an excellent display on the screen of many lesions which he had mentioned in his paper.

The PRESIDENT proposed a most hearty vote of thanks to Mr. Brown for his very excellent paper and illustrations, and that the discussion should be deferred un-

til our next business meeting, as in the short time left at our disposal, full justice could not be rendered.

The SECRETARY seconded, and it was carried with acclamation.

Sir Stewart Stockman then gave a most interesting cinematograph show, of horses affected with parasitic mange, and their treatment with the spray. Also, some cases of "Scrapie" in sheep. This disease is prevalent in the North country, but Sir Stewart informs us that it has not existed in the South for 100 years.

This concluded one of our most enjoyable of meetings, and the President thanked Sir Stewart on behalf of the Society for his kindness in inviting the Society to the laboratory, and the very interesting subjects which he had illustrated on the screen.

J. C. COLEMAN, Hon. Sec.

## VETERINARY POLITICS.

*To the Editor of "The Veterinary Record."*

Sir,—The contents of your "Correspondence Columns" during the past few weeks I have read with interest, and although I may be severely criticised for entering into the discussion, being a student, I will excuse myself on the plea that the Public Schoolboy has been attacked, and intends to retaliate.

Mr. Squair asks:—"How many public schoolboys have the courage to enter the profession? or having entered it, have the 'guts' to become successful veterinary surgeons?" He is of opinion that there are very few. I have summoned up enough courage to endeavour to enter it, and could enumerate quite a number of others, including a brother, who have taken the degree.

I consider that to be a successful veterinary surgeon, financially and socially, a man requires to be well-educated and have plenty of tact, as he is brought into contact with so many different classes of humanity, but, he should bear in mind that to be pleasant with a man it is unnecessary to adjourn to a public-house and make yourself 'cheap.' That is how so many lose any respect that might be due to them. Also it is desirable always to remember that "Familiarity breeds contempt."

There are two classes of public schoolboys—Gentleman and Snobs. The latter will never be successful as doctor, barrister, veterinary surgeon or anything else; the former, if he is keen enough to undertake veterinary surgery will put up a jolly good fight to make it a success.

I feel confident "Dagonet" need not fear that veterinary surgeons will be done without if they ask for a reasonable remuneration for their services. Insurance companies may dispense with V.S. Reports, but time will bring them to a more reasonable state of mind if what I have seen is the case generally.

Undoubtedly, if members were to combine, and not endeavour to "cut one another's throats" they would receive greater respect, and at the same time be able to fight the "Patent Medicine man."

There is no doubt in my mind that in order to establish such a brotherhood every Veterinary School should have its Students' Club where social intercourse might be cultivated by members of the different years, and this should at the same time afford an opportunity to the less fortunate ones to self-educate themselves, and thus raise indirectly the future standard of the profession.—Yours faithfully,

L. ST. BEL GOLLEDGE, Class "D"

Royal Vety. Coll.: N.W.

May 5th.

# ROYAL COLLEGE OF VETERINARY SURGEONS FELLOWSHIP DIPLOMA.

A meeting of the Board of Examiners for the Fellowship Diploma was held at the College, 10 Red Lion Square, London, W.C., on Saturday, May 10th, 1919. Four entries were received and the following candidates were successful:—

## *New Regulations.*

Capt. Thomas Michael Doyle. Tropical Medicine. Thesis: "Piroplasmiasis." Examiners:—Capt. J. T. Edwards, B.Sc., and Professor J. Macqueen.

Capt. George Church Lancaster. Veterinary Surgery. Thesis: "Gunshot Wounds in Animals and their Treatment." Examiners:—Professor J. Macqueen, and Mr. J. Malcolm.

## *Old Regulations.*

Capt. Alexander Taylor, M.A.; Examiners:—Professor J. Macqueen, Messrs. J. Malcolm and W. Woods.

W. J. MULVEY, Chairman.  
FRED BULLOCK, Secretary.

## **Personal.**

Mr. P. G. BOND, M.R.C.V.S., at Plymouth Institution recently gave two lectures on "Men of the South Hams." The first dealt more particularly with those who in the past had played an important part in local and national affairs, while the second was devoted to South Hammers who had rendered noble service in Empire building.

The lectures were much appreciated by large audiences and were illustrated by fifty lantern pictures. Mr. Bond who has a wide knowledge of most matters appertaining to the history of the West of England, presented to the Institution an album of pictures of the many ancient houses he had described.

Mr. G. GAIR, J.P., M.R.C.V.S., Conon Bridge, has been elected on the Ross-shire Education Authority (Mid Ross Division). He headed the poll of the seven members elected. The successful candidates included two Medical practitioners, a Minister of Religion, two Proprietors, and a Farmer. There were eleven unsuccessful candidates.—*The Ross-shire Journal*.

## **Deputation of V.M.A. to the Chief Secretary for Ireland.**

The second deputation, representing the North of Ireland Veterinary Medical Association, consisted of Mr. J. Ewing Johnston, M.B.E., M.R.C.V.S. (president of the Association); Mr. F. W. Emery, F.R.C.V.S.; Mr. J. A. Jordan, M.R.C.V.S.; Mr. Thomas M'Guinness, B.A. M.R.C.V.S.; and Mr. J. J. Ross, M.R.C.V.S.

In the course of their speeches the members of the deputation pointed out that as an Association they felt the Ministry of Health Bill was one which vitally affected the profession, and that the duties devolving upon them as veterinary officers would be of an onerous and responsible character. It had now been conclusively proved that disease had been conveyed from the farmyard to the consumer in consequence of the ailment from which the animal suffered while alive, and it had also been proved beyond question that many serious forms of disease, including tuberculosis, anthrax, etc., which had manifested themselves in our large industrial centres, had been traced to places of production. In the past the public health authorities had endeavoured to the

best of their ability to cope with such matters, but it had now been admitted that the services of veterinary officers, with their technical knowledge and experience, were necessary in order that such forms of disease might be traced to their origin and the most up-to-date methods adopted to eradicate them. To this end the Association recognised that it would be necessary to entrust to veterinary officers appointed under the Bill the following duties:—(1) The inspection of dairies and cowsheds; (2) the examination of animals with, when necessary, the application of scientific tests for disease; (3) the examination of animals intended for the food of man prior to slaughter; (4) to assist in tracing diseases and in elucidating points of doubt and difficulty in all cases in which it may be presumed such have arisen from or through animal sources; (5) meat inspection; and (6) to control well-equipped and soundly-supported laboratories established for research and experimental work in connection with this special service.

The deputation pointed out that in order that the foregoing duties might be efficiently performed it was desirable that at least one veterinary officer who should devote his whole time to the duties should be appointed by each county council, and under those conditions the health of a community would be safeguarded and the dangers of disease reduced to a minimum. Also, having regard to the very prominent part the profession would have to take under the Act, it was thought it should have at least two representatives on the Irish Public Health Council, and further, that clause D of the Bill should be amended so as to expressly provide that one of the members of the Council should be a member of the Royal College of Veterinary Surgeons.

It was submitted that no Ministry of Public Health could be efficient or complete without an independent veterinary section upon which the Minister could rely for correct information and guidance, and to which matters relating to animal disease should be referred. There were numerous diseases of man and animals that were so closely related in their causation that for their elucidation the most cordial association of the medical officer and the veterinarian was essential.

On the subject of the inspection of meat and dairy herds it was claimed that for the efficient performance of these duties it was imperative that the veterinarian should have the active control and complete discharge of services connected therewith—working, of course, in co-operation with the medical officers of health. Generally speaking, at the present moment this county was practically without a proper system of meat or dairy inspection. Some places in Ireland where there was no system of meat inspection constituted a grave menace to centres such as Belfast, where, notwithstanding the strictest surveillance, it was possible for dishonest traders under cover of darkness to surreptitiously deposit diseased carcasses in different parts of the city. The abolition of all private slaughter-houses, the establishment of public slaughter-houses in urban and rural districts under the administration of the County Council, the adoption of a uniform system of meat inspection, and the appointment of whole-time veterinary meat inspectors would, it was claimed, go far to remove this evil.

In regard to the milk supply, it was urged that the Ministry of Health Bill provided an opportune moment for putting into effect some scheme for the safeguarding of the public health by a well organised control of the milk supply. In order to ensure a pure milk supply the deputation advocated the licensing of every milk vendor, whether wholesale or retail, and that every applicant for a licence to trade in milk or its derivatives should be compelled to fulfil certain well-defined conditions. It was felt that they ought at least to insist that the con-

ditions pertaining to the supply of milk were as stringent as those governing the manufacture and sale of intoxicants.

The deputation received a favourable and sympathetic reception from the Chief Secretary, who informed them that the Ministry of Health Bill was going forward. He urged the members to proceed with propaganda work, and said he was satisfied that they would obtain recognition.—*The Northern Whig*.

### ELECTION ADDRESSES.

#### *To the Members of the Royal College of Veterinary Surgeons.*

Gentlemen,—In issuing this appeal I am not following the stereotyped custom of a host of promises usually set out in an Election Address, but to state.

I have been nominated by the Yorkshire Veterinary Medical Society for re-election, after serving 12 years on the Council R.C.V.S., and as a member of the Registration, Finance and other important Committees.

I am essentially a practitioners' representative, am conversant with the needs and reforms beneficial to the profession, and will, when finance permits, lose no time to secure them.

I consider your Council during the last four years has conducted the business of the profession with ability and economy.

If you do me the honour to re-elect me, I can assure you of my best endeavours to justify your confidence.—Yours faithfully,

Westfield House, SAMUEL WHARHAM.  
Leeds, 12 May, 1919.

#### *To the Electors of the Council R.C.V.S.*

Gentlemen,—Last year, nominated at the last moment, I received a gratifying amount of support and I again solicit your votes. Now, as then, I consider Finance, Parliamentary representation, and greater publicity of our proceedings are matters of first importance. Reports in the press tell us that medical men are striving for more direct parliamentary representation. If important for them it is surely a hundredfold more important for us. We have no representation, no one fully conversant to represent our views across the floor of the Commons, the one place that obtains publicity and demands attention. Frequently we notice men of our profession complaining of the social standing of the profession, "That it is little thought of" etc. Individually I think it is largely personal. Collectively we cannot hope to obtain this unless we obtain greater publicity and the public educated to the activities and importance of the profession for the public good. Our Military tribunal should continue to press for the demobilisation of our men. Surely hundreds could now be allowed to return to their homes.

*Education.* The standard for admission should tend to rise. Subjects of no use to the practitioner

eliminated and others of importance substituted in the curriculum.

*Representation.* The present Council is not representative of the profession. I am in favour of representation for the schools, Army, Board of Agriculture, and also district representation. Councilmen of the latter class by attending the Association meetings of their districts would be in constant contact with the views of their electors and would more surely be their representatives. It would also, I am confident, bring a larger number of men to the membership of the Associations, and arouse that enthusiasm now largely dormant. "Fees," "appointments," "the wants of the general practitioner" etc., would then be more advantageously discussed, and resolutions passed, for the guidance of their representative.

Councilmen elected should be pledged to a regular attendance and if, unhappily, that became impossible, should forthwith resign.

55, Southgate St., J. B. TUTT, F.R.C.V.S.  
Winchester, May 10/19.

### ROYAL COLLEGE OF VETERINARY SURGEONS

*To the Editor of the "Veterinary Record."*

10, Red Lion Square, S.W. 1.

Dear Sir,—On the instructions of the President, I am to remind members returning to civil life of the necessity of notifying me of their new address, in order that any necessary correction may be made in the Register. This is especially important in view of the forthcoming issue of voting papers which will be despatched on May 21st.—Yours faithfully,

FRED BULLOCK, Registrar.

### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Allen, H., Major, R.A.V.C.	£1 1 0
Foster, A. N., Major, R.A.V.C.	1 1 0
Skelton, S. H., Capt. R.A.V.C.	1 1 0
Taylor, R. C., Colchester.	1 1 0
Previously acknowledged	739 15 10

May 13. £743 19 10

### ARMY VETERINARY SERVICE.

*Extracts from London Gazette*

WAR OFFICE, WHITEHALL, May 7.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

Temp. Capt. W. B. De Vine relinquishes the actg. rank of Maj. on ceasing to be empld. as D.A.D.V.S. (Apr. 10).

May 9.

Capt. to be actg. Maj.:—J. J. G. Keppel, Spec. Res., whilst holding the appt. of D.A.D.V.S. (Feb. 12); P. J. Malone (March 5.)

Capt. C. D. M. Buckley, M.C., M.B., relinquishes the actg. rank of Maj. on reposting (March 27).

May 10.  
Temp. Capt. H. G. Simpson relinquishes actg. rank of Maj. (April 19).

Temp. Qrmr. and Lt. G. P. White, from Gen. List, Infy., to be temp. Qrmr., with the rank of Lt. (Feb. 26, 1918).  
Temp. Qrmr. and Lt. O. Preston, to be Capt. under Art. 330. R. Wt. for Pay and Promotion (April 28).

May 12.  
Capt. T. A. Dobie, Spec. Res., to be actg. Maj. (Feb. 8).

May 13.  
Temp. Capt. E. J. Burndred relinquishes the actg. rank of Maj. on vacating the appt. of D.A.D.V.S. (Apr. 23).

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

May 7.  
Capt. J. E. L. Still to be Maj. (April 10).

May 8.  
The notification regarding Capt. (now actg. Maj.) R. E. Beilby, which appeared in the *Gazette* of April 11, is cancelled.

May 9.  
Capt. (temp. Maj.) J. Gillies, R.A.V.C. (T.F.), relinquishes the temp. rank of Maj. on ceasing to be empld. (Apr. 1).

May 12.  
Capt. (actg. Maj.) W. K. Barron relinquishes actg. rank of Maj. on ceasing to be empld. (March 20).

Capt. (actg. Maj.) G. H. Farrell is retired, having attained the age limit (May 13), and retains rank of Maj.

Capt. (actg. Maj.) C. Hartley, R.E.C.V.S., relinquishes actg. rank of Maj. on ceasing to be empld. (April 5).

Capt. (temp. Maj.) C. E. Neill relinquishes temp. rank of Maj. on ceasing to be empld. (April 10).

Capt. (actg. Maj.) J. J. Ridley relinquishes the actg. rank of Maj. on ceasing to be empld. (March 29).  
Capt. (actg. Maj.) J. H. Wright relinquishes actg. rank of Maj. on ceasing to be empld. (April 5).

The War Office announces the following casualties:—

\* \* \* \*  
Died.—McMAHON, Capt. B., R.A.V.C., attd. R.F.A.

#### An experiment in Sheep Breeding.

A Victorian (Australia) breeder who raised sheep for mutton began the plan of setting apart for special attention the ewes which yielded twins. In all flocks there is a percentage of ewes which are unusually prolific, and he worked on that fact. His experience has been that the ewes, with sufficient food, were able to support in the young stages two lambs as well as one. The result of the scheme has been remarkable. Before he embarked upon it his lambing percentage was 89. The next year, after culling, it rose to 104, and in the third year to 144. He is so satisfied with his project that he has mapped out a course to apply the principle to rams—that is, selecting the sires which are themselves descended from prolific mothers. Breeders all know the value of the principle of selecting in the dairy herds, and there is no reason to fear the results when applied to other live stock. This breeder expects that before he has done he will develop a flock which will give him a lambing percentage of at least 200 per 100 ewes. That, he thinks, would be a safe point at which to halt.

#### DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confrmd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered. *
	Dogs	Other Anmls											
			(a)		(a)		(b)		(b)		(b)		
Gr. BRITAIN.													
Week ended May 10	12	1	4	4					87	196	2	66	28
Corresponding week in {	1918		5	5			1	1	93	162	3	47	10
	1917		9	9					50	80	4	78	43
	1916		11	13					36	66	2	138	495
Total for 19 weeks, 1919	79	3	71	95	19	153	6	30	2804	5555	211	538	192
Corresponding period in {	1918		120	135			14	38	2397	4608	227	419	140
	1917		252	287			11	20	1297	2688	358	987	420
	1916		251	294	1	24	21	62	1256	2972	169	1784	5632

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, May 13, 1919

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

IRELAND.	Week ended May 10	Outbreaks						Animals	Slaughtered.*
		...	...	...	...	...	...		
Corresponding Week in									
1918	...	...	...	...	...	...	...	...	...
1917	...	...	...	...	...	...	...	...	...
1916	...	1	1	...	...	...	...	...	...
Total for 19 weeks, 1919	...	...	...	...	...	1	1	58	144
Corresponding period in									
1918	...	1	1	...	...	...	...	61	158
1917	...	2	2	...	...	1	1	18	206
1916	...	2	6	...	...	...	...	29	207

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, May 12, 1919  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1611.

MAY 24, 1919.

VOL. XXXI.

## THE MAINTENANCE OF THE REGISTER R.C.V.S.

Last week we printed an official letter from Mr. Bullock, our Registrar, written "on the instructions of the President," reminding members returning to civil life of the necessity of notifying him of their new addresses. The issue of voting papers is mentioned as a special reason for the appeal; but there are other and much less temporary ones. Considering the number of men already demobilised, the probability of others soon to follow, and the well-known carelessness of members regarding changes of address, the Registrar seems likely to have a more troublesome year's work than he has yet had. In normal times, he cannot bring the Register to its maximum of possible accuracy without some help from the members. That help is more necessary now than ever, and many whose own addresses are not in question may be able to give it. It should not be forgotten that the Statutory evidence of a man's qualification is the presence of his name on the Register.

## VETERINARY SURGEONS IN PUBLIC LIFE.

A notification that Mr. G. Gair, of Conon Bridge, Dingwall, who is already a J. P., has been elected upon the Ross-shire Education Authority, appeared in our pages last week. He headed a list of seven successful candidates, which included two members of the medical profession and one of the clerical. This is another illustration of the not sufficiently recognised truth that, whenever a veterinary surgeon is willing to enter the public life of his district and is capable of discharging the duties, his profession is no bar to his entrance. The truth has been proved often enough all over the country; but not so often as it would have been had not members generally been so lukewarm in these matters. There is no doubt that we have ourselves largely to blame for the slight part we have hitherto played in local public life. Admittance to it depends upon a consensus of local opinion as to the individual's fitness for the duties—that is the one test. A veterinary surgeon has as good opportunities of becoming widely known in his district as any man; and, if he is also favourably known, a share in its public life is at his choice. One of the just reproaches of the profession to-day is that the choice of the great majority of us has always been to keep out of public life and work. There are many who could enter it at any moment; but while nearly all refuse it the profession can hardly play the part in our national life that it might do. All honour to the few pioneers like Mr. Gair, who set a good example to their less public-spirited colleagues,

## THE VALUE OF READING.

The main object of most men in attending courses of instruction at a Veterinary College is to obtain sufficient knowledge to satisfy the examiners. Many men do very little study after receiving the diploma, and men have been met who boasted that they had not opened a book since they left college, and others have admitted that they did not read because they could learn nothing from books, as most of the writers were not practical men.

The term "practical man" is one very difficult to define, but "practical" is certainly not synonymous with well informed. The practical man may handle his patients well, and attend to them in what he considers the one and only manner, and he may have learned much from experience; but what is all this worth if he has not compared his experience with that of others? No one considers he knows all that is to be known concerning the veterinary art—this would be the height of presumption—and if such a person does exist he is to be pitied.

An address was given to students by a professor on the true aims of education, and in that address the central idea was that students and others had to "learn how to learn." That phrase has stuck to me, although it is nearly twenty years since I heard it used first.

There is very little to be gained by taking only a narrow survey of any subject. Our outlook and our reading must essentially be as wide as possible. Some men—more especially during war—are extra hard-worked and have very little time for reading. It does not depend upon the amount read; what really matters is the amount assimilated, and that left to give food for thought. It is a great mistake for a professional man to stick only to literature pertaining to his profession, as much can be learned in works dealing with travel, biography and history. Fiction also serves to refresh the tired mind. Veterinarians possess a good secondary education, and it behoves us to continue to build on the foundation laid during our school days.

A veterinary surgeon, known to the writer, who was highly successful in practice and in financial affairs, attended to his practice from 7.30 a.m., to 5 p.m., and his leisure was occupied with the newspapers and love stories. There is an old couplet:—

"Ease without occupation is not rest"

"A mind quite vacant is a mind distressed."

Wide reading has very many advantages. Much information that is of considerable interest and importance to student and practitioners does not appear in professional papers, and one requires to read many and various publications to keep up-to-date.

Those who have a knowledge of languages derive considerable benefit from the study of foreign textbooks and papers. Many more veterinarians in this country should read American veterinary papers. The advertisements that appear in them will repay close perusal. What strikes one most in reading the American veterinary publications is the way in which the meetings of association are conducted. The American Veterinary Medical Association has nearly 3000 ordinary members and there are 28 honorary members, four of these being well known Britishers namely, Hoare, Hobday, M'Fadyean and Stockman. There is no way of telling from the reports how many British graduates are members.

A few notes on how the Americans conduct their meetings may be of interest. The following is a brief summary of a meeting held in January 1918, at Ithaca. The subjects for discussion on the first day were:—

The veterinarian and conservation.

Lesions in spavins and their significance, (illustrated by lantern slides).

Digestive action of the mouth secretion of the horse. Garbage feeding, and the care of garbage fed swine. The work of the Bureau of Animal Industry and the War.

Treatment of retained placenta.

Retained placenta and its consequences.

Work of the State food Commission.

Live stock production and the veterinarian.

In the evening a smoking concert was held. The papers on the second day were:—

Tuberculosis of the generative organs.

The actual cautery for chronic inflammation of tendons and tendon sheaths of the leg of the horse.

The organisation of a Veterinary Corps for the National Army.

The economic and military necessity of an Army Veterinary service.

At all meetings there are clinical demonstrations and the following is a list of the cases shown at a meeting.

- (1) A black mare affected with high ringbone on both fore limbs was presented and double median neurectomy was performed.
- (2) A fibroma at the point of shoulder was removed from a black gelding.
- (3) A bitch was presented for oophorectomy. The hyoscine-morphine-cactin anæsthetic was used.
- (4) A pig with prolapse of the rectum and a sow with hernia were also presented.

The clinic occupies the whole afternoon of the second day.

We have nothing similar to that here, and the above example of an American veterinary meeting is given to show the value of reading. Had we not read of these things, we probably would still have been in utter ignorance of them.

Reading is of immense value to those whose duties include the writing of reports. Books are the direct source of instruction, solace, wisdom and recreation; they are the food of the mind and the spirit.

The following wish, written in the 16th century expresses the sentiments of the writer of these notes.

"May I a small house and a large garden have,"  
"And a few friends and many books."

"LAMANOHA"

#### A SIMPLE METHOD FOR THE DETECTION OF SMALL PARASITIC WORMS IN THE FIELD.

The writer has drawn attention\* to the unnecessary prevalence of worm infestation among young stock. Often a number of animals die before the condition is recognized. One reason for this is that many of the worms are too small to be seen readily by the unaided eye, especially when they are mixed with the contents of the stomach or intestines.

A simple method for the detection of some of these smaller worms is as follows:—Take up with a knife a scraping from the mucous membrane and spread it lightly as a thin moist film upon a piece of glass—window glass will do, but a microscopical slide is safer to handle. The smear should then be held up between the eye and the light when many of the worms can be seen as characteristic wavy, curved or straight lines, grey, greyish yellow or brownish red in colour, and tapering at one or both ends. The use of a pocket magnifying glass aids the detection of the worms. The smear can also be examined against a dark surface e.g., that of a bowler hat.

In the case of ruminants a good place to see the worms is under the folds of the abomasum.

The same method may be adapted to the examination of the faeces from suspected cases, but the parasites will be fewer in number and a longer examination will be necessary.

Dept. of Pathology D. C. MATHESON.  
Royal (Dick) Vet., Coll: Edinburgh.

#### CLINICAL CASES.

By J. H. PARKER, Faringdon.

##### SCROTAL HERNIA.

*Subject:* Yearling Shire colt: cost 48 guineas as sucker last Malmesbury sale. Owner stated he was a bit full in scrotum when purchased, but thought it had disappeared. Cast him for castration in May and carefully examined him; could find nothing wrong, but warned the owner that bowel might descend when testicle was removed. Orders to risk it. Immediately the testicle (left) was exposed, small intestine followed. The colt kept heaving, and soon the left sac was full of bowel and up to the size of a child's head. We removed the testicle by actual cautery, carefully sealed up the blood vessels, sutured the operation wound. We then drew the skin up as tight as possible and darned up the scrotum with interrupted sutures as

\* *The Scottish Journal of Agric.*, Vol., ii No. 2, Apr. 19' p. 243  
*The North British Agriculturist* Feb. 20 1918, p. 117.



high as possible, and after making sure all the bowel was returned, put a wooden clamp on including skin and everything. The colt was allowed to rise, and commenced feeding. Two days afterwards a messenger came to say they thought the bowel had descended again, but it was only the swelling caused by the clam. Six days afterwards a post-card stated the colt was doing well, and the clam was coming off. It came off on the seventh day. On the ninth day a message stated the colt to be "all of a heap." I found that the hernia operation had been a success; but the colt had developed lockjaw, and he died two days afterwards, in spite of the fact that he had been drenched with disinfectants twice a day since the clam was applied.

#### PIPING.

Last November an urgent message came to see a cow "with yards of piping hanging from her behind," and he didn't know what it was, although he said the cow seemed alright otherwise. I went next morning, and found it had all come away, and that it was the small intestine of a sheep, about four yards, which she must have swallowed and passed right through her. It was very fetid, and on my arrival the ducks were tucking it into them with evident enjoyment.

#### THE CENTRAL VETERINARY SOCIETY.

[NATIONAL V.M.A.—SOUTHERN BRANCH].

A General Meeting was held at 10 Red Lion Square, London, W.C., on Thursday, May 1st, at 7 o'clock, Professor G. H. Wooldridge (President) in the Chair.

The following Fellows signed the attendance book:—Messrs. E. L. Stroud, J. Rowe, F. G. Samson, H. D. Jones, H. King, H. C. P. King, W. N. Thompson, J. W. McIntosh, A. E. Willett, J. Willett, R. C. Irving, W. R. Clarke, G. H. Livesey, P. W. D. Smith, W. F. Widden, W. Perryman, G. P. Male, and Hugh A. MacCormack. Hon. Sec.

Visitors: Capt. J. McAnulty, Vety. Corps, U.S.A., 2nd Lieut. J. J. Marten, Vety. Corps, U.S.A., Capt. J. B. Leitch, A.A.V.F., Maj. P. J. Simpson, R.A.V.C., Gilles de Kock and J. Bell.

*Minutes.* It was decided that the minutes of the previous meeting, which had not yet been published, should be taken as read.

*Correspondence.* The SECRETARY read letters from Messrs. J. B. Buxton, S. H. Slocock, and J. C. Coleman regretting their absence from the meeting. Also a letter from the Royal Sanitary Institute requesting the Society to send a delegate or delegates to their next meeting on July 28—August 2nd, at Newcastle-on-Tyne.

The CHAIRMAN said that Section (5) of the letter, referring to a conference of veterinary inspectors, was the section which was of particular interest to the Fellows as veterinary surgeons.

After discussion it was decided, on the motion of Mr. Willett, seconded by Mr. Stroud, that the consideration of the appointment of delegates to the Conference of the Royal Sanitary Institute should be postponed to the next meeting.

The CHAIRMAN reported to the meeting that the Council had decided to make a donation of Twenty Guineas to the Anglo-Franco-Belgian Relief Fund, and a donation of Two Guineas to the Victoria Veterinary Benevolent Fund.

The meeting then passed a vote of sympathy with the relatives of two Fellows of the Society who had recently died, Mr. Woodger and Mr. Heatley. A vote of sympathy with Mr. Foreman, who had recently lost his wife, was also passed. The Secretary was instructed to communicate the sympathies of the meeting to the relatives.

*Nomination.* Major Percy Simpson, D.S.O., was nominated for Fellowship and will come up for election at the next meeting.

#### FATTY FÆCES.

The RESIDENT invited Mr. Livesey to make a further statement with regard to the case which he had mentioned at the last meeting, of a dog which had been passing fatty stools.

Mr. LIVESKY announced that the dog in question had made an uneventful recovery, which he did not attribute to any drugs or treatment of his, beyond good nursing and sticking to the diet of meat and such food as Benger's Food, and the avoidance of fatty substances such as bread and margarine. He could not account for the illness; he did not know its cause, but he supposed it was caused by some temporary cessation of the action of the pancreas. If any further development of the trouble should occur he would report it to the Society, as he thought it an interesting case, the origin of which it was very difficult to explain.

#### "SOME OBSERVATIONS ON EQUINE INFLUENZA"

by Mr. G. P. MALE, M.R.C.V.S.

#### DISCUSSION.

Mr. THOMPSON, said he thought Mr. Male was to be congratulated on his most interesting paper. He would deal with the ten questions which Mr. Male had specially raised in their order.

The first head was the cause. He did not think many members could go further than Mr. Male had gone, because they were more or less in the hands of the pathologists, and the generally accepted theory at the present time was that it was due to an ultra-visible organism. That was the exciting cause. The pre-disposing causes, undoubtedly, were of some importance. Any cause, which interfered with the animal economy, subjects it to be affected by the immediate cause, whatever it might be, of influenza; that applied to anything which tended to debilitate the animal. Of pre-disposing causes, exposure to cold was said to be one. He disagreed that that was one of the pre-disposing causes, although he agreed generally with the others. He did not think that an animal which was in good health otherwise and fit, would be more liable to the disease from exposure to the cold.

The second question is: "What is the relationship between so-called influenza and contagious pneumonia?" Mr. Male had given the opinion of Mr. Watkins-Pitchford on that subject, and he practically came to the conclusion that there was no such thing as contagious pneumonia—in fact, that it was an idiopathic condition, and that it was preceded in the majority of cases by catarrh which was not infectious. If that was so he (the speaker) could not see that there was any connection between influenza and contagious pneumonia. Whether the condition which was said to accompany influenza or to succeed influenza was due to the same cause, of course he could not say. As he had seen it, he thought pneumonia was not a very constant complication of influenza. He had said that before at a meeting of the Society, and others did not seem to agree with him. But he had thought that there might be reasons for it. Many people included under the term "influenza" almost any catarrhal inflammation of the tracheal mucous membrane, such as the so-called "horse dealer's fever," which he was glad to see Mr. Male thought was due to the streptococcus

of strangles, because that was a view he (the speaker) had expressed before the Society about two years ago: ordinary coryza, ordinary laryngitis and pharyngitis is called influenza. In fact he saw a report not very long ago in which a catarrhal condition was called "an influenza cold," which was really, he thought, due to ordinary catarrhal fever, or to strangles infection. That sort of thing occurred frequently in horses, and with that condition one did get pneumonia and pleurisy; but he had very seldom seen pneumonia follow influenza. He had often wondered why that was so, as it seemed contrary to the experience of others. For one thing, the horses with which he was concerned were under veterinary supervision. Immediately a suspicious case was observed, instructions were issued that all horses which appeared off colour from any cause were inspected before they were sent out to work. Other reasons for infrequency of pneumonia were probably that the cases were treated very early; the horses with which he was concerned were, generally speaking, in hard, fit condition. He had Col. Watkins-Pitchford's report before him, in which it was said: "Recent observations now suggest . . . of the disease as one of an idiopathic nature rather than a specific nature, or perhaps standing mid-way between the two categories." What was meant by that he, (the speaker) really did not know,—"being due to the agency of an organism being present in but not pathogenic to the normal horse" (reading to the words) "which habits it." Then further on in the summary he says: "The great majority of cases of specific pneumonia are preceded by an inflammation of the nasal membrane, constituting the condition known as catarrh" (reading to the words) "horse to horse."

He found it practically impossible to infect horses suffering from so-called contagious pneumonia by cohabitation. Horses were put together and were fed out of nosebags which other horses with discharge had had on, and did not become infected. He (the speaker) thought that if those findings were accepted—and they were quoted by Mr. Male—he did not see how there could be any connection; he thought it was due to the debility caused by influenza, and probably accelerated by working the animal when it is not fit, or to not putting the horses under proper hygienic conditions, and thus weaken the natural defences of the animal.

"Is the pneumonia a secondary infection or a primary disease?" He had given his opinion on that.

The fourth question, "What conditions predispose towards it?" he had also dealt with. The seasons of the year probably had something to do with it; the majority of cases occurred in the spring and the fall of the year—both seasons when the horse's vitality was low.

Fifth, as to the period of incubation, he had a good many records of influenza, and he had intended to tabulate some temperature charts and other records, but time had not permitted. He had found on looking into his records that an increase in the number of cases occurred every six or eight days, but whether that was any guide he did not know. The first cases in an outbreak were generally mild, and if taken early the horses would soon be back at work. He had also noticed that horses had gone off their feed about a week before an outbreak occurred. He thought it was well known that the first cases of influenza were generally mild; towards the middle of the outbreak the cases were considerably worse, and then dwindled down in intensity, and similarly with the number of cases.

"How is the disease contracted?" He had not much to say on that question. He had under one roof from 400 to 600 horses, and that was the stable where more of the trouble occurred. He could not say that the stable was very hygienic; it was under railway arches, and very difficult to ventilate properly. There were in all about 26 arches, each arch holding about 24 horses.

The horses stood between bales; it was very rarely that a horse standing on either side of the horse which had had influenza came in with influenza. The cases occurred here and there throughout the stable; he did not think that immediate contact was necessary for the disease to be contracted. He thought that aerial contamination was the method by which the disease was carried.

On the seventh question, "How long can an animal be infective?" he could offer no opinion. Mr. Male had said that some animals act as carriers, owing to diseased foci being left in the lungs. That, he supposed, was presuming that the lung symptoms were due to the same cause as influenza, which he (the speaker) thought was very doubtful. He rather regarded influenza as a sort of toxemia.

With regard to the methods of treatment, he thought the most successful methods were practically those given by a medical man before the British Medical Association—"Go to bed and stay there." He immediately put his cases into a large box, leaving the top door open. He did not use drugs much; he often gave four to six ounces of Epsom salts, which might be repeated for two or three days. Any complications which occurred were treated as they cropped up. One got rheumatoid complications; metastatic lameness and muscular tenderness; arthritic symptoms sometimes occurred; also nervous symptoms, due probably to an infection or affection of the meninges, which respond more or less to time and treatment with Pot. iod. and Nuc. vom. As a rule when one put the horses in a loose box they would lie down, sometimes for hours together. They are off their feed, and gradually return to it in two days or so; he questioned whether it was wise to get them to feed too early. In many cases there was a catarrh of the mucous membrane of the bowel, probably of the duodenum, and of the bile-duct; he thought some of the colouring of membrane was due to the absorption of bile, due to the blocking of the bile-duct or through the swelling of the duodenum. He did not use many drugs. In his time he had probably used all the drugs in the pharmacopeia; but he found his present methods cheaper and better. Strychnine he used if heart symptoms occurred; if a horse does not come on to his feed a little carbonate of ammonia usually brings him on; if he did not do as well as he ought afterwards, a little iron or gentian might help. Each case had to be dealt with on its merits; he did not think any hard-and-fast rule could be set.

Question 9 was: "Is there any known method of inoculation which could be recommended as preventive or curative?" He had very little experience of preventive inoculation, but he did not think much benefit was derived from that. A colleague inoculated a lot of horses, and his results were set out in the following letter: "I tried a certain influenza vaccine prophylactic at Bristol during a bad attack. I took one stable and did every horse, but the result was not satisfactory. Most of the stable contracted the disease. We had 80 cases out of a stud of 115. This is my only experience of vaccine for influenza."

In reply to the tenth question—"Is there any evidence pointing to contagion or infection from animals to man, or *vice versa*?" he remarked that although there had been a lot of influenza among human beings for some months, until a few weeks ago there had been practically no influenza among horses. He had noticed, however, that when there had been influenza among the horses there were no more stablemen away ill than usual; and during the epidemic among human beings, although a good many men were away, there was no influenza among the horses. He would not say that the two had not occurred together; but certainly there was no marked connection between the outbreak among the horses and increased illness among the men.

Mr. W. PERRYMAN said the feature of the paper that had struck him was that Mr. Male seemed to be dealing a good deal more with pneumonia than with influenza. He was in agreement with Mr. Thompson rather than Mr. Male. He thought that as seen in London, influenza or "pink-eye" was a very distinctive disease from pleuro-pneumonia, and that if one got pleuro-pneumonia it was quite a secondary complication; and while he was not by any means a bacteriologist, he would say the organisms were quite different in the two diseases. As Mr. Thompson had stated, if influenza cases were placed under good hygienic conditions, one seldom got complications of pneumonia; for that reason he thought the two complaints were distinct. One did get pneumonia, he thought more of the bronchial character than the croupous pneumonia or consolidated form. He also agreed with Mr. Thompson that one fact tending to prove that influenza was not so contagious from one animal to another by direct contact, is that one frequently found one animal in one corner of a stable affected, and another on the other side. If it was entirely of a pneumonic character he would expect the next horses to get it. If one got contagious pneumonia, which generally seemed to him to be pleuro-pneumonia, one got several cases following rapidly in the same stud, and one got them at a time when one had not seen any cases of so-called pink-eye. For that reason he would certainly look upon them as two very different diseases. Many of the symptoms were different. In cases of pleuro-pneumonia one frequently found advanced consolidation of the lung itself before noticing anything very wrong with the horse; whereas in "pink-eye" or influenza there was a very severe train of symptoms, such as high fever and the swelling of the eye-lids, limbs, etc. In pleuro-pneumonia those distressing symptoms seldom occurred. There might be slightly increased breathing; but when one auscultated the chest it would be found that the disease had progressed very rapidly.

He thought there was general agreement as to the predisposing causes: bad hygienic conditions, overwork, debility. The incubation period, he thought might be better demonstrated in a general practice than in Mr. Thompson's case. Where one went into a stud and saw a case of "pink-eye," and that was the first case, on watching carefully one would undoubtedly find that in about a week the second or more cases occurred. He generally reckoned about eight days as the period of incubation.

With regard to how the disease influenza was contracted, he regarded inhalation as the chief cause, for the reason that cases occurred scattered about different parts of a stable.

He agreed with Mr. Thompson that in treatment, fresh air was perhaps the most important thing; also warmth, clothing, and if any drugs were used they should be stimulants, with a laxative. He had used stimulants, such as digitalis, nux vomica, etc., in the later stages, especially where the horse showed signs of depression through being worked while the disease was in progress. The giving of iodine was mentioned in the paper. He thought iodine was a splendid drug, but he did not agree with the large amount of iodine mentioned in the paper, because that given internally would set up a good deal of irritation in the bowels. He personally never gave more than about 10 grains in a bolus. He thought larger doses would certainly set up irritability in the bowels, and would also result in iodism of the system, and salivation. He had seen that once in a case of polyuria, the animal had colic with it; and the symptoms were very distressing. He also gave heavy doses of bi-carbonate of soda with the iodine, because he thought it was sedative to the mucous membrane.

On the question of infection of the human being—he had never felt very nervous about it himself. He

thought if it were very infective to the human subject many veterinary surgeons would get it. He had not noticed that the men who attended to the horses contracted the disease.

He did not think that inoculation was of any use, and never tried it.

Mr. MCINTOSH said with regard to the cause of influenza he had nothing to say except that the contagion appeared to be extremely volatile and spreads with enormous rapidity once it gets a hold in a stud of horses.

He was in agreement with Mr. Thompson and Mr. Perryman that influenza and contagious pneumonia were separate and distinct ailments. Whilst there were certain symptoms common to both diseases there were others quite diagnostic. Influenza is characterised by its epizootic nature, rapid spread, high temperature and great depression with digestive implications. Further there is slight catarrh of the nasal chambers; the organs of respiration were seldom involved, provided the disease is detected at its onset and proper precautions are then taken.

Contagious pneumonia, on the other hand, occurs enzootically, does not spread with the same rapidity, depression is not nearly so pronounced, the organs of respiration are primarily involved and digestive implications are very rare. Influenza is a mild complaint as compared with contagious pneumonia.

He agreed as to the predisposing causes which had been mentioned, except with regard to cold. He considered that mild muggy weather was much more likely to favour an outbreak than mere cold.

As to the incubation period, it was experimentally about five days, but naturally it varied very considerably according to the resisting powers of the animal, and might extend to ten or even fourteen days.

He thought it was possible for an animal which had to all appearances recovered from influenza to be a source of infection to others for many weeks afterwards, and possibly for a month or two. Cases were recorded where sires had conveyed the disease to mares twelve months after having had the complaint.

In the treatment, he used very few medicines. Good nursing, attention to ventilation and comfort generally, careful dieting, were practically all that was needed. If the disease is not discovered at the onset, and the animal is worked during the initial stage, complications may arise. If there is great depression and cardiac debility, he generally gave injections of strychnine hydrochlor. or perhaps digitalis. In gastric affections possibly a saline, or a little calomel with enemas.

In all outbreaks of influenza he had the temperatures of his stud taken morning and night with a view to detecting the disease at its first onset.

Mr. IRVING said his experience had been that the heavy cart horses had been much more liable to the disease than the lighter breeds; the thoroughbred suffered least of all. He had seen horses out at grass, away from all infection, contract the disease. He had had cases such as Mr. McIntosh had mentioned, where the horse suffered from muscular ailments afterwards; a great many horses became shiverers after it.

Mr. DE KOCK said he felt honoured to be invited by the President of the Society to address the meeting. He had been working with Sir Arnold Theiler, at the Veterinary Research Laboratory, Pretoria, for about five years, and during that period there had been several outbreaks of what has been styled "Infectious Catarrhal Fever of Horses." It was of a very infectious nature and spread through the country with great rapidity, affecting most of the animals. They did not feel reconciled to call it "pink-eye" for the reason that the disease started with catarrhal symptoms, and lacked that marked depression which was one of the characteristics in equine influenza, and also the peculiar colouration of

the conjunctival mucous membrane to which the disease owes its popular name.

This infectious catarrh was generally recognised in the morning by examining the charts of the horses in the various experiments, when a rapid rise of temperature was evidenced, sometimes going up to 105 and even 106. It remained irregularly remittent for quite a number of days and then dropped down to normal. Sometimes a relapse may be observed, somewhat resembling the initial stages of a subacute form of "Equine Infectious Anaemia." With the rise of temperature catarrhal symptoms become evident, beginning as a slight serous discharge from the nostrils which with the progress of the disease becomes more purulent in character. Further there does not seem to be much impairment. Occasionally slight fever was shown with only slight serous discharge from the nostrils.

The disease was of a fairly mild nature in South Africa. They never had a case of post-mortem. There had only been as far as he can remember two cases of deaths, these being complications in the form of Purpura Hemorrhagica. The nature of the disease was not investigated on account of insufficient staff.

In speaking of Infectious Pneumonia, he would like to mention an experience of Sir Arnold himself, which happened before the Anglo-Boer War at the State Artillery Barracks. A specific infectious pneumonia of a severe character affected a great number of the horses, and with a fairly high mortality. At post mortem a croupous pneumonia was evidenced. There was no sign of equine influenza at that time. On the other hand it must be remembered that pneumonia often occurs as a sequel in many of the other debilitating diseases, such as Nuttalliosis, equine infectious anaemia, etc., and on post mortem one meets with a broncho-pneumonia which sometimes becomes gangrenous. He did not know "pink eye" himself, but he took it from Sir Arnold that it differed from what they called the infectious catarrhal pneumonia. In the latter case the respiratory tract was mainly affected. It might be a form of strangles and in a few cases a streptococcus had been observed. Of course the etiology of influenza and all the different pneumonias had not been properly investigated and needs further research work.

Lieut. MARTEN, U.S.A., Veterinary Corps, said he had not read the paper; he had glanced over it; but he had listened to the discussion with great interest. They had what they called influenza in the States, and the symptoms were as outlined. They had found that most of the influenza broke out in Army camps; it did not occur so much in civilian life. He always thought the disease was due to debility caused by the animals being shipped for two, or three, or four days by railroad. He had read an opinion that the cause of influenza was in the animal's body all the time, and that when the animal became debilitated the infection became more prominent, and the animal got influenza or catarrhal fever. He found that pneumonia often followed influenza. He thought that contagious pneumonia and influenza were quite different diseases. He agreed that heavy draught horses were more subject to the disease than lighter breeds. He did not give much medicine; hygienic conditions, and plenty of fresh air and fresh drinking water formed the treatment. Occasionally he gave nuxvomica or gentian to build up the appetite, and if the animals were very weak strychnine might be given. He had used a good many serums, but had not found them very effective—though of course the serum companies claimed they were very good. (Laughter)

Capt. LEITCH, Australian Veterinary Corps, said he felt some embarrassment in addressing a meeting of that kind on such a subject, but he might give an account of one or two experiences he had met with. About five or six years before the war there had been a bad outbreak

of the disease in Melbourne and the provincial towns of Victoria. About 80 per cent of all the horses in those towns were affected, and the commerce of those cities was tied up for a week or ten days. The treatment had been simply stimulants and tonics where necessary, the main part of the treatment was to take the horse off work as early as possible; if they went on working they nearly all died, but if they were taken off work, not one died. Veterinary surgeons was rather few and far between out there, but that was the opinion of all of them. With regard to the catarrh mentioned by Mr. de Kock, he had seen that in Africa. During the war, in Cairo he had a large remount depot; he was there 16 months, and there was a very bad outbreak. The practice was to put all the affected animals into one kraal, and the thing died out in ten days' time. That was the only thing to do when one had to deal with 700 or 800 horses; there was very little white labour, though there was plenty of black. He did not know whether the pneumonia which occurred on board ship came within the scope of the discussion, but he had experience of the disease on three voyages. In his opinion it was an entirely different disease from influenza. In one outbreak, out of 780 horses on the way to Africa, only one died; in another instance only two were lost out of 600; in another instance one was lost out of three or four hundred. As soon as he found the temperature going up he had cold water thrown over the animals, kept going all the time, so as to reduce the temperature as quickly as possible, and generally he found that in a day or two they were on their feet again. That was all he ever did, and he thought that was why he got good results.

Mr. F. G. SAMSON said he agreed with practically all the symptoms as described by Mr. Male. He thought that bad cases of influenza were due wholly and solely to keeping the horse working too long. He thought the more serious attacks occurred in the towns, rather than in the country. He remembered a case of a racehorse, the property of the late Mr. Edward Wragg. All he did in that case, as far as treatment was concerned, was to turn the horse into a paddock and leave him there a few hours twice daily when warm and fine. He believed he did have one good dose of mustard on his chest and sides. It was a good plan to pay regard to the bowels. Epsom salts had been mentioned. He much preferred Glauber's salts to Epsom salts; he found that Glauber's salts was much less depressing, and did not remain about the system so long. He believed a good mustard plaster to the sides of a horse was a very good thing; if circulation was bad and the breathing accelerated. He knew some eminent men said it was irritating; so it might be, but he knew it warmed them up and set the circulation going. He believed in carbonate of ammonia in cases where the animals got low; a drachm, or two drachms with gentian twice a day, or three times if necessary. Another very good thing to do was to lead the horse out two or three times a day, even if it was only for a few yards or so; it assisted the circulation, and prevented the infiltration into the legs. He thought pneumonia was quite a different disease from influenza. He had had nothing to do with vaccines at all.

Major P. J. SIMPSON said he thought influenza and contagious pneumonia were entirely separate diseases. He remembered one unfortunate outbreak of pneumonia when he took a shipload of horses out to Egypt in 1915.—It was not such a happy voyage as Capt. Leitch had described.—Curiously enough, the boat was a new one; it had never had a horse in it before. The horses were all healthy when the trip started; but the first death occurred within three days of leaving England, and that was only the first of several. That was undoubtedly contagious pneumonia. He also remembered when the yeomanry were mobilised at Reading for the South African War, their departure was delayed by an

outbreak of influenza in the stables there and although pneumonia occurred as a complication the cases presented very different symptoms to the outbreak on board ship. He found that when animals were kept in the open the disease did not occur; he had practically none during the present war. He had experience in Egypt of the catarrh referred to by Capt. Leitch, and the method of treatment was the same as had been referred to; the affected animals were put into a separate kraal. The horses all came out perfectly well, and not a grain of drug was given to them. He did not think that cold was a pre-disposing cause of influenza; ill-ventilation of stables was a much more potent cause.

The PRESIDENT in closing the discussion said he thought Mr. Male in his excellent paper had purposely put up some opinions to be hit at. The point which interested him most was the question of the identity or otherwise of influenza and contagious pneumonia in the horse. He held very strongly that the two diseases were quite separate and distinct. His opinion was based mainly on the difference between the symptoms. In his experience, in influenza in the horse, intense depression was the most predominant feature, accompanied by loss of appetite, followed in a day or two by elevation of temperature. In the case of contagious pneumonia it was just the reverse. The horse did not go off its feed until he had a high temperature, very often for 24 hours, or even 48, or sometimes three days; often the disease was not noticed for some time. In the case of influenza it was impossible not to notice that the horse was ill. Again, the character of the pulse and the circulation differed considerably. In influenza there was a soft, slow, sluggish, drawn-out pulse; whereas in contagious pneumonia there was a pulse of good tone, more of the characteristic febrile pulse that is described as "full and bounding." In influenza there often occurred complications such as catarrh of the alimentary tract, and edema of the limbs; and he had not come across either of those complications in contagious pneumonia. Another complication met with in influenza but not in contagious pneumonia, is jaundice. With regard to the quotation from Hutyra, he considered that the fact that no one had yet artificially produced pneumonia was no argument that it did not exist as a separate disease; it was simply begging the question. He thought most members would agree that pneumonia might occur secondarily as a complication of influenza, but when it did occur it was not etiologically the same disease as that generally regarded as contagious pneumonia of the horse. When pneumonia occurred as a sequel to influenza, it was brought about by a variety of organisms; it was sometimes due to the streptococcus, and sometimes to the ovoid bacillus.

The cause of the croupous pneumonia which occurred sometimes primarily was not yet determined, but the organism usually present in greatest numbers was the ovoid bacillus described by Lignières. On the Continent the principal view held was that what we call contagious pneumonia is simply a pectoral form of influenza, but that view was not widely accepted in this country, especially amongst practitioners with wide clinical experience of both conditions.

As to the transmissibility or otherwise of the disease from animals to man, he had not yet found any evidence that the disease was so transmitted, and in his view there was no association between the two influenzas.

Questions have been asked with regard to the muscular and nervous complications sometimes met with in influenza. He had seen them frequently, and in thoroughbreds especially it was not uncommon to get a rolling gait and a weakness of the loins that almost suggested kidney or spinal complications. He attributed that to general debility rather than to spinal affection. It was similar to staggering in dogs with great debility in uncomplicated but severe distemper.

In the treatment, in cases either of influenza or contagious pneumonia where there was a commencing very high temperature, it was a good plan to use some antipyretic to reduce the temperature as quickly as possible; he employed salicylate of soda or acetosalicylic acid, in 2-drachm doses, applied to the tongue with treacle, and repeated perhaps twice or three times in the course of two days. When that was discontinued, either simple salines, or if there was much debility hypodermic injections of strychnine or digitalin would be found useful. His experience of vaccines corresponded with that of other members who had spoken—he had not found any benefit from their use.

#### REPLY.

Mr. MALE said that the object of the paper, as the President had remarked, was to promote discussion, and if possible to arrive at some definite conclusion on the points he had brought forward. There were some things upon which every one was agreed—which was something. They were agreed about fresh air; about the giving of Epsom salts to the horse as a laxative; most members were agreed as to the use of stimulants and not depressants; although Prof. Wooldridge had mentioned acetosalicylates, which he (the speaker) rather regarded as too depressing in influenza, in view of the heart's action being already so depressed. He had expected to get a wiggling for discarding quinine so abruptly. Quinine seemed to have been a sheet-anchor for many years, and so he had taken the trouble last night of looking up the authorities on the action of quinine, and he had found that it was a great depressant in every way. It depressed respiration, and if given in large doses it paralysed it altogether; it depressed the action of the heart, and it decreased the action of the white blood corpuscles; but as no one had advanced the giving of quinine his labour of love in looking up the authorities had proved to be unnecessary. Most members were also agreed that the vaccines were of little use. They were all agreed that the temperatures should be taken frequently, and that any horse with a high temperature should be stopped from work—that if a horse was worked he would get pneumonia.

But members were not agreed at all as to whether pneumonia was a complication of influenza, or whether it was a separate disease. He was really very disappointed at the arguments put up against the theory which he had tried to propound in his paper. Nearly every speaker had agreed that they were entirely different diseases, but there were only two speakers who gave any reason for that view. The others were men who had a great experience of horses, and whose opinions he valued very highly; and they admitted that their stables were hygienic, that they took the horse's temperature, that in fact they did not give the horses a chance to get the pneumonia, and they all made the remark that they thought it was a secondary complication. Well, that was what he had contended all the way through; that it was the influenza organism that weakened the defences of the body, and that the horse, if he was put under certain adverse conditions, was rendered liable to the attacks of the pneumonia organism, which in some outbreaks took on an increased virulence, whereupon the pneumonia rapidly developed—masked the symptoms of influenza in some cases. That was what occurred in the outbreak he had quoted. The typical symptoms of influenza, and what were laid down as the typical symptoms of contagious pneumonia, all occurred in the same outbreak.

The PRESIDENT said that with Mr. Male's permission he would like to add one point which had slipped his mind, tending to show that contagious pneumonia might occur absolutely independently of influenza. If it was always a secondary infection following on influenza, there must always be first the preliminary attack of in-

fluenza, which must last several days, after which the pneumonia would develop; but in numerous cases in his personal experience there had been no such preliminary stage.

Mr. MALE said he would take Prof. Wooldridge's points seriatim. His first point was that in cases of influenza the horse was off his feed, and that was the first symptom; whereas in contagious pneumonia the horse fed well. All the other members who had spoken had borne him (the speaker) out that, as in contagious pneumonia, a rising temperature was the first symptom of influenza and for that reason had advised frequent taking of temperatures. In so-called cases of contagious pneumonia that he had dealt with, one of the first signs noticed was that the horse was off his feed, as in the case of influenza (but in both diseases a rise in temperature was to be looked for).

Then the President made a strong point with regard to the pulse, which he had made also in a paper before another Society. The authorities generally agreed with his (the speaker's) observations, that the pulse in influenza was a hard, quick pulse, such as Prof. Wooldridge had described in pneumonia. (Who could imagine a horse with a temperature of 106° with a slow, full pulse). He thought that disposed of that point. (Laughter) Then with regard to catarrh, the President had said that catarrh occurred in influenza; he was not clear whether he meant nasal catarrh as well as abdominal catarrh and swelling of the limbs; whereas neither of those symptoms occurred in contagious pneumonia. Now it was established that in influenza catarrh affected most of the organs, the respiratory tract and the abdominal tract, and there was a discharge from the nose in many cases. In Law's table of diagnostic symptoms of the two diseases he said that in contagious pneumonia there was discharge from the nose, and that in both cases it was yellow, and his own observations confirmed this.

The PRESIDENT said that he did not refer to nasal catarrh at all; it was intestinal catarrh which was absent in pneumonia.

Mr. MALE replied that the catarrh affecting the bowels in contagious pneumonia was even more marked than in influenza; a horse often got severe diarrhoea also, and when those symptoms occurred the horse would probably die.

The PRESIDENT said that was so in a moribund horse, but not in a horse in a typical condition.

Mr. MALE said that the catarrh of the bowel was typical of contagious pneumonia, even if diarrhoea did not occur. Catarrh of the bile-duct also occurred, as was proved by the bilious condition of the membranes. The post-mortem lesions in a horse which had died of influenza complicated with pneumonia were identical with those where a horse died of so-called contagious pneumonia. Freidberger and Fröhner, Laws, Hutyra and Marec, all agreed on that point. With regard to swellings, in the case of the outbreak he had quoted (which the President thought was contagious pneumonia) many of the horses got swelling of the limbs; so that if Prof. Wooldridge contended that that was an outbreak of contagious pneumonia, then he would have to admit that the swellings in the limbs were symptomatic of contagious pneumonia. Some authorities described contagious pneumonia under a special head, and under that special head they described the symptoms of swelling of the legs—in fact there was another synonym given for that. The points which Prof. Wooldridge had pointed out as diagnostic symptoms disagreed with his (the speaker's) observations, they disagreed with some of the other speakers' observations, and they disagreed with most of the authorities he had consulted; so that as far as he could see no points had been brought forward which held water to refute the suggestions he had made! (Laughter.)

With regard to the transmission of the infection from horses to man, he was rather interested in the recent outbreak in human beings; and having had influenza, and watched other people have it, it struck him very forcibly that the disease was practically identical with that occurring in the horse. Most medical men agreed that pneumonia was a secondary complication to influenza, as he thought was the case with the horse. There was considerable doubt as to the cause of influenza in the human subject. Pfeiffer had found and described a bacillus, but it was very doubtful at present as to whether that really caused the disease; medical men inclined to the view that the cause of the disease was an ultra-microscopic organism. He had a letter from a past-President of the College—he would not mention his name—which said: "I personally thoroughly endorse all you have written." A Professor known to the members had told him that he had observed what he thought were cases of infection from horses to man. So that there was some evidence to support his suggestion. Of course, as in many other diseases, the conditions must be suitable for infection. In the outbreak of influenza among human beings the increased virulence, he had no doubt, was due to increased herding of people owing to the war. In the same way with horses, there would be the increased virulence of the organism which caused the lung symptoms, with also possibly the influenza virus; and if the men were put under those adverse conditions then he thought there might be a chance of their becoming infected from the horse; but he hoped experiments would be made to prove or disprove that. He noticed that most of the authorities in the text-books said there was absolutely no connection; that Pfeiffer found a bacillus, and therefore there was no connection between the two. That was the chief argument they advanced as to there being no infection from horse to man—because Pfeiffer found a bacillus; but Pfeiffer's bacillus had got rather into bad repute recently, so that possibly the text-book would be revised in its next edition.

A vote of thanks to Mr. Male for his paper was carried with acclamation.

#### LETTER FROM MR. LESLIE SCOTT, K.C., M.P.

The PRESIDENT inquired whether members desired that Mr. Leslie Scott's letter should be returned to him for amplification of the points he had raised, or whether they would like to appoint a small committee to go into the matter and bring recommendations forward.

Mr. WILLETT said he thought a small committee might be formed to go into the matter after Mr. Leslie Scott had been heard from again, and bring its conclusions before the next meeting.

Mr. McINTOSH thought that Mr. Leslie Scott could give no further information; the points were quite clear. They knew what he meant.

The PRESIDENT thought it was not quite clear what he did mean.

Mr. IRVING said it was by no means clear; it was altogether too indefinite. He proposed that Mr. Leslie Scott should be written to, and asked to elaborate his questions, and give a definite statement as to what he proposed to do before the Society discussed the matter. Mr. Willett formally seconded, and this course was agreed to.

HUGH A. MACCORMACK, Hon. Sec.

#### NORTH OF IRELAND V.M.A.

The following resolution was passed by the Council of the North of Ireland Veterinary Medical Association at their meeting held in Belfast on the 12th May 1919:—

"That having carefully considered the proposed Bill of the National Master Farriers Association, we are de-



terminated to oppose it by every means in our power, as it threatens to interfere with the rights of veterinary surgeons to conduct the business of horseshoeing. And we beg to suggest to the Council of the Royal College of Veterinary Surgeons, that a committee be formed to look after the interests of our profession in the passage of the Bill."

"That they also wish to express themselves in entire sympathy with the Anæsthetics Bill at present before Parliament, and trust that its passage may be secured."

May Street, J. EWING JOHNSTON, M.B.E., M.R.C.V.S.  
Belfast, 15th May. President

### THE DIGNITY OF THE PROFESSION.

To the Editor of "The Veterinary Record."

The following advertisement for a Veterinary Inspector in lieu of the late Mr. E. Manwell, M.R.C.V.S., deserves publication.

It shows in what light the Local Authority sanctioned by the Veterinary branch of the Irish Department of Agriculture views the administration of the Diseases of Animals Act.

Is it any wonder that notifiable diseases are prevalent even more so than the weekly returns lead one to suppose.—Yours faithfully,

Kells, Co. Meath, J. FOX, M.R.C.V.S.

#### MEATH COUNTY COUNCIL: APPOINTMENT OF VETERINARY INSPECTOR.

"The Meath County Council will at their Quarterly Meeting to be held on Monday, 26th May, 1919, at eleven o'clock in the forenoon, at the County Hall, Navan, consider applications and appoint a Veterinary Inspector under the Diseases of Animals Acts for the Ardee No. 2 Rural District of County Meath.

The person appointed will receive a salary of £15 per annum, same to be in full discharge of all duties to be performed by him under the Diseases of Animals Acts or Orders in Council thereunder now in force, or which may hereafter be enacted; or under any direction of the Department of Agriculture and Technical Instruction, or the Local Authority or its Executive Committee under the said Acts, and to include mileage or attendance at such Fairs and Markets as may be required.

It will be necessary that the person appointed reside within the area comprised by the Ardee Union.

Appointment to be subject to the approval of the Department of Agriculture and Technical Instruction.

Applications will be received not later than eleven o'clock in the forenoon on Monday, 26th May, 1919. Personal attendance of candidates necessary at time of election. By Order,

County Hall, JOHN J. GRENNAN, Secretary.  
Navan, 28th April, 1919.

### "CONSULTATIONS, ADVICE, ETC."

Sir,—The following inscription appears on a board attached to a little house in the main thoroughfare of a town near Reigate:—

H. P. REID,  
late R.A.V.C.

Consultations, advice &c. in special cases by expert veterinary surgeon arranged.

I am sending the above to the Royal College of Veterinary Surgeons in the hope they will communicate with the Army Veterinary Department, but in the meantime it behoves all members of the profession to watch for such sign boards as above, as quackery after the great war is bound to be rampant.—I am, Yours faithfully,

The Gables, Reigate,  
22 May 17.

CHAS. A. SQUAIR.

Dear Sir,—“Fools rush in where Angels fear to tread” and I daresay I shall draw down the wrath of the mighty unknown if you care to print this protest; but why all these pen names, Dagonet, Diogenes, etc., why should a man be ashamed of his own name? Personally I am only a poor, dense and doubtless misguided country practitioner, but I am never inclined to place much value on opinions expressed over a pseudonym and I believe there are many others of the same way of thinking.

All this froth arises because I have just been reading “Dagonet” in yours of May 3rd; now, I have had the pleasure of meeting both Mr. J. Willett and Mr. McIntosh and can place a definite value on their opinions but Mr. D, well of course he is only an unknown shadow.—Yours truly,

Lechlade, Glos.  
May 20.

J. R. BAXTER

### THE ROYAL SANITARY INSTITUTE.

Patron: His Majesty the King.

Congress at Newcastle-upon-Tyne, July 28th to August 2nd, 1919. Arranged at the invitation of the Mayor and Corporation. President of the Congress: His Grace the Duke of Northumberland.

The arrangements for the meeting will include:—President's Inaugural Address. Lecture to the Congress. Popular Lecture.

Sectional Meetings for the reading and discussion of papers relating to:—Sanitary Science and Preventive Medicine. Engineering and Architecture. Hygiene of Maternity and Child Welfare. Personal and Domestic Hygiene. Industrial Hygiene.

Conferences: Representatives of Sanitary Authorities. Representatives of Port Sanitary Authorities. Medical Officers of Health. Engineers and Surveyors. Veterinary Inspectors. Sanitary Inspectors and Health Visitors.

It is proposed to arrange in connection with the meeting a Health Exhibition specially illustrating Hygiene of Infants and Child Welfare, Housing, including laying out of estates, planning, materials and construction, fittings and appliances; Ship Sanitation, etc., as well as matters relating to Municipal Sanitation and Domestic Health and Comfort.

Visits are arranged during the Congress to Water Works, Sewage Disposal Works, Isolation and other Hospitals, and other places of Sanitary interest.

### ANIMALS (ANÆSTHETICS).

A Bill to make further provision for the Protection of Animals from Cruelty. Presented by Lieut.-Col. Walter Guinness, supported by Lieut.-Col. Archer-Shee, Sir Frederick Banbury, Mr. Bottomley, Mr. Butcher, Major Courthope, Lieut.-Col. Greene, Sir Samuel Hoare, Mr. T. P. O'Connor, Major O'Neill, Mr. John Jones and Sir Philip Magnus.

1—(1) If any person shall subject or cause or procure, or being the owner permit to be subjected an animal to an operation contrary to the regulations contained in this section, he shall be guilty of an offence under this Act.

(2)—(a) A horse shall not be subjected to any operation specified in the First Schedule to this Act, and a dog shall not be subjected to any operation specified in the Second Schedule to this Act, unless the animal during the whole of the operation is under the influence of some general anæsthetic of sufficient power to prevent the animal feeling pain.

(b) A horse two years old and over shall not be subjected to the operation of castration unless during the whole of the operation he is under the influence of some general anaesthetic of sufficient power to prevent him from feeling pain.

(c) A horse shall not be subjected to any operation specified in the Third Schedule to this Act unless during the whole of the operation it is under the influence of some general anaesthetic or some local anaesthetic being, in either case, of sufficient power to prevent it feeling pain.

2—(1) Any person who is guilty of an offence under this Act shall be liable on summary conviction in respect of the first offence to a fine not exceeding five pounds, and in respect of any second or subsequent offence to a fine not exceeding twenty-five pounds, or alternatively, or in addition thereto, to be imprisoned with or without hard labour for any term not exceeding three months.

(2) An appeal shall lie from any conviction or order by a court of summary jurisdiction under this Act to quarter sessions.

3—(1) The Board of Agriculture and Fisheries may, by order made subject to the provisions of this section, add any other operation to the operations specified in any schedule to this Act, and any operation so added shall be deemed to be an operation specified in that schedule, and the Board of Agriculture and Fisheries may also by order made as aforesaid extend any provision of this Act to any domestic animal to which it does not at the time apply, with such modifications or additions as may appear to that Board to be necessary.

(2) The draft of any such order shall be published for a period of two months before the order is made, and the Board of Agriculture and Fisheries during that period shall receive and consider any representations made to them with respect to the order by any persons appearing to them to be interested in the subject of the order.

(3) The order, when made, shall forthwith be laid before Parliament, and shall not take effect until it has so lain for thirty days before each House of Parliament, being days upon which that House has sat, and if a resolution is passed by either House before the expiration of such days declaring that the order be annulled, the order shall not take effect, but if no such resolution is passed the order shall take effect on such day after the expiration of the last day on which any such resolution might have been passed as the Board of Agriculture and Fisheries may appoint.

4 In this Act, except the context otherwise requires the expression "dog" includes and bitch, sapling, or puppy; "general anaesthetic" shall include chloral hydrate, and in the case of a dog morphine.

#### SCHEDULES.

*First Schedule.* Radical operation for quittor. Line fring. Operation for stripping the wall of the hoof or sole. Radical operation for poll evil. Radical operation for fistulous withers. Ovariectomy. Laparotomy.

*Second Schedule.* Castration. Ovariectomy. Laparotomy.

*Third Schedule.* Neurectomy or unnering. Enucleation of the eyeball. Trephining.

#### MEMORANDUM.

The Cruelty to Animals Act, 1876, provided for the use of anaesthetics in the case of all experiments calculated to cause pain. There is, however, no restriction of any kind on operations performed in the ordinary course apart from research.

This Bill would make it an offence to perform certain scheduled operations on horses and dogs without the

use of an anaesthetic. It would not interfere with the present practice of castrating colts, but would make an anaesthetic compulsory when this operation is performed on horses two years old and upwards.

The schedules deal only with operations on horses and dogs, but the Bill would empower the Board of Agriculture to order the use of anaesthetics for such other operations on domestic animals as might be thought advisable after full enquiry, and after laying a draft order for thirty days before each House of Parliament.

In the House of Commons, May 2.

Lt.-Col. WALTER GUINNESS, in moving the second reading, said:—

"The advance of medical science has not brought any alleviation of suffering to animals in the way that it has to human beings. It has, indeed, too often greatly increased their sufferings, because there are now performed on animals surgical operations which were never dreamed of in the days before the discovery of anaesthetics revolutionised surgery. There are, no doubt, many humane owners who make a point of demanding the use of anaesthetics for their animals, but in the enormous majority of cases horses and dogs do not have the benefit of anaesthetics in the complicated and severe operations in which they would invariably be used as a matter of course in the case of human beings. This Bill has never been discussed in the House of Commons, but it has been very considerably discussed in the country, and has been modified to meet the views of agriculturists and of the veterinary profession. I first drafted a Bill on this subject in 1912, as the result of myself seeing a great many veterinary operations at the Royal College of Veterinary Surgeons and elsewhere. In its original form the Bill, besides making anaesthetics compulsory in the case of certain scheduled operations, forbade the castration of pigs and bulls over the age of six months except in the case of disease. This was strongly opposed by agriculturists, and to meet their views I reintroduced the Bill in 1913 without the provision as to pigs and bulls, and, in the case of horses, limiting the compulsory use of anaesthetics to the gelding of two-year-olds and upwards, where, owing to the larger size of the blood vessels, the operation is more protracted and painful than in the case of colts. In 1913 the Cattle Diseases Committee of the Central Chamber of Agriculture wrote approving of the Bill in its amended form. Clause 3 would enable the Board of Agriculture to extend the Schedules and to apply them to other domestic animals, after fulfilling certain necessary provisions to secure that agricultural interests are not forgotten. Ill-luck in the ballot prevented any progress with the Bill in 1913, and in 1914 further changes were made in the scheduled operations to meet criticisms which had been developed by a very considerable correspondence in the columns of the 'Veterinary Record,' the 'Veterinary News,' the 'Veterinary Journal,' and elsewhere. The proposal in its present form has been very carefully discussed, and it is the result of an agreement to meet those agricultural and veterinary interests which had the best claim to be considered. The scheduled operations are limited to those on horses and dogs, and a distinction is drawn between operations which should be performed under a general anaesthetic and those for which only a local anaesthetic is required. I know it may seem rather curious to lay down anything stringent in the way of distinction between local and general anaesthetics, but I am told by young and progressive members of the veterinary profession that there is so much prejudice among certain of the older men against the use of anaesthetics that, unless it is definitely laid down what shall be used, many operators will go on with the present practice of using no effective anaesthetic whatever."

"I ought perhaps to say that this Bill was in no way suggested by the veterinary profession. Obviously, it would be a very invidious matter for them to bring forward. But although it is brought forward by myself and owners of animals who had seen veterinary operations themselves, we have certainly had the help of veterinary surgeons, who have been good enough to give very valuable criticism and advice. From the first the drafting of this Bill has met with strong support among horse-owners. It is going, I hope, to be seconded to-day by an hon. Member who takes a great interest in racing, and I am quite certain that, unless the measure was considered imperative in the interests of humanity, we should not have had the support which has been forthcoming in the past. More than one veterinary surgeon has confessed to me his feelings of horror at the sufferings he has had to inflict owing to the refusal of owners to allow the use of anaesthetics. In view of the fact that it has long been recognised that, if a horse is unfit for work, no financial consideration shall absolve its owner from liability to a charge of cruelty if he does work it, it is surely not too much to provide that where owners for their own convenience and profit subject their helpless animals to severe and painful surgical operations, they should be compelled to find the few shillings which are necessary to secure the use of an anaesthetic.

The following are portions of the debate :—

**Sir WILLIAM WHITLA :** I just want to say that I do not believe that you would get one dissentient voice among the 25,000 medical men. I believe that they would all accept this Bill with satisfaction and with very great pleasure. I want to associate myself with all that has fallen from the hon. and gallant Member who introduced the Bill. I think he may be perfectly satisfied that docking can be adequately dealt with by the use of local anaesthetics, and if on the Committee stage of the Bill docking is included among the operations to be dealt with in that manner, I think that is all that is required. The Bill should also be applied to dogs. I cannot see why colts under two years should be exempted.

**Lieut.-Col. GUINNESS :** The reason is that you cannot perform the operations now almost universally applied to colts under a general anaesthetic. There was a tremendous amount of opposition to the Bill in its original form because it applied to colts.

**Lieut.-Col. RAW :** I agree with my colleagues that a very large number of operations can be performed efficiently with local anaesthetics instead of with general anaesthetics; there is no doubt about that. I should like to ask the hon. and gallant Gentleman if he is quite satisfied that it would be possible to give general anaesthetics to animals in all the cases mentioned in the Bill. The progress of veterinary science and veterinary surgery has been extraordinarily great during the last few years. We all know the difficulty of giving animals, and especially horses, general anaesthetics, and it might be that the extension of the list of operations under local anaesthesia might be less harmful to some animals than an attempt to give general anaesthetics.

**Sir H. GREENWOOD :** May I say at once, on behalf of the Home Office and of the Board of Agriculture, that we do not oppose the Second Reading of this Bill? The measure itself is backed by Members sitting in all quarters of the House, and those who have spoken in support of it have done so with a special knowledge of the animals to which it refers. I want the hon. and gallant Member for Bury St. Edmunds and the hon. Gentlemen who support him to allow the Board of Agriculture or the Home Office when the Bill gets into Committee to make certain Amendments not with the object of affecting the principle of the Bill, but with the

object, in the first place, of bringing the penalty and appeal Clauses into line with the Summary Jurisdiction Act, I must also qualify my acceptance of the Bill by retaining the right to introduce at the proper time words or a new Clause to this effect :—

"But nothing in the Act shall apply to any experiment to which the Cruelty to Animals Act, 1876, applies."

There may be other Amendments in Committee put forward by the Departments for which I speak to-day to more clearly define or qualify certain words and phrases and to make the Bill more accurately secure, an object which I think is most laudable.

Bill read a second time, and committed to a Standing Committee.

#### TUBERCULOUS CATTLE.

Brigadier-General Sir Owen Thomas asked the Parliamentary Secretary of the Board of Agriculture whether, in view of the increase in tuberculous cattle in this country and the consequent danger to young children due to the consumption of infected milk, he would put in force the Order for compulsory notification by the owners of such cattle, which was suspended in 1914, and secure to the owners a fair compensation for cattle compulsorily slaughtered.

**Sir Arthur Boscawen :** The Tuberculosis Order of 1914 was issued under powers given to the Board by the Diseases of Animals Act, 1894, with the view of preventing the spread of tuberculosis in cattle. It has been decided to re-issue the Order as soon as the Milk and Dairies Act comes into operation. The Order provides for compensation according to scale for cattle slaughtered under its provisions.

#### Demobilisation R.A.V.C.

The War Office announces that the demobilisation of units of the Royal Army Veterinary Corps and Royal Army Ordnance Corps is still attended with some difficulty, especially in Egypt. Demobilisation of other units entails increased efforts on the part of the R.A.V.C., whose duties now comprise the taking over of incapacitated animals, classifying them according to age and soundness for ultimate disposal, and preventing disease among them.

Similar considerations apply to the demobilisation of the R.A.O.C. The Corps has to take over all the discarded impedimenta of dispersed units which require adequate custody until finally disposed of.

#### Prosecution by R.O.V.S.

At the Elham Petty Sessions on Thursday, before Mr. J. E. Quested (in the chair) and other magistrates, E. H. S. Champneys, of Sellindge, was summoned for unlawfully acting as a qualified veterinary surgeon. Mr. A. K. Mowll appeared for the Royal College of Veterinary Surgeons, and Mr. H. Stainer for defendant, who pleaded guilty.

Mr. Mowll said defendant was a very able man with regard to horses and had done business in the district for some years, but he was not a qualified veterinary surgeon. In this case Mr. Clement Hobson, of the Elham Stud Farm, wished to send some horses to Ireland, and it was necessary for a certificate to be filled in, certifying the animals were all right. Mr. Champneys was called in to examine the horses, which he did, and on the certificate which it was necessary to fill in he signed himself as a qualified veterinary surgeon. The College took a serious view of the case.

Evidence was given by Nicholas Crogan, stud groom to Mr. Clement Hobson. When the defendant filled the certificate up it was getting dark. Mr. Champneys did not say he was not qualified.

For the defence Mr. Stainer said he understood from the defendant that he told Mr. Crogan he was not a qualified man and that he should call in Mr. Gulleford. When defendant signed the certificate it was getting dark. Of course he should have carefully looked at the document. There was no question of defrauding anyone.

Defendant was fined £2 and £1 1s. special costs.—*The Kentish Observer.*

### The Public School Spirit.

People who love to stir up class wars are very hot just now on decrying "the public school spirit." I think they would have had their eyes opened had they been—as I was—at a meeting in London on Friday to discuss a war memorial to fallen Old Wellingtonians. 606 killed, 750 wounded! When you are reminded by Sir Ian Hamilton that the number of wounded in past wars has generally been 4 or 5 times larger than the number of killed, these figures strike you, as they struck him, as evidence of "quite exceptional determination and valour." It was from the O.T.C.s that we got the officers, and the Duke of Connaught affirms that it was the public-schools who made the O.T.C.s.—*The People.*

### THE R.A.V.C. COMFORTS FUND.

By kind permission of the President, a meeting of the Royal Army Veterinary Corps Comforts Fund will be held at the Royal College of Veterinary Surgeons, Red Lion Square, on Tuesday, 3rd June at 3 o'clock, to decide the disposal of the balance in hand when the Fund is finally closed. All contributors are earnestly invited to attend.

E. A. BLENKINSOP, Hon. Sec.  
29/7 Bramham Gardens, S.W. 5

Original articles and reports should be written on one side of the paper only and authenticated by the names and addresses of writers, not necessarily for publication.

## ARMY VETERINARY SERVICE

### Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, May 17.

The following are among the Decorations awarded by the King of Italy at various dates to the British Forces for distinguished services rendered during the campaign: The King has given unrestricted permission in all cases to wear the decorations and medals in question:—

### CROCE DI GUERRA.

\* \* \*  
Capt. (act. Maj.) T. J. FAITHFULL, (Spec. Res.)  
Temp. Capt. G. GREEN.  
Temp. Capt. M. SPARROW.  
Capt. (actg. Maj.) W. STOTHERT, O.B.E., (T.F.)

### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

May 13.  
Temp. Capt. E. J. Burndred relinquishes the actg. rank of Maj. on vacating the appt. of D.A.D.V.S. (Apr. 23),

May 15.  
Maj. and Bt. Lt. Col. A. Olver, C.B., C.M.G., F.R.C.V.S. relinquishes the act. rank of Col. on ceasing to hold the appt. of D.D.V.S. (April 1); Temp. Capt. J. F. Donnelly resigns his commn. (May 16).  
Can. A.V.C.—Temp. Capt. J. Biron retires in the British Isles (April 30).

May 20.  
Temp. Hon. Capt. J. Brown relinquishes his commn. on ceasing to be empld. (Mar. 24), and retains the hon. rank of Capt.

### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

May 19.  
Temp. Capt. (actg. Maj.) R. L. L. Hart, relinquishes the act. rank of Maj on ceasing to be empld. (April 1).

### OBITUARY.

JOHN CLAYTON JONES, M.R.C.V.S., Newcastle Emllyn, Carmarthenshire. Graduated, Lond: Dec. 1875. Mr. Jones' death occurred on Sunday, 18th inst.

JAMES EDWARD KITCHIN, M.R.C.V.S., Worship Street, London, E.C. New Edin.: April, 1878.

Mr. Kitchin died at his residence, Glengall Lodge, Woodford Green, Essex, on Monday, 19th inst., aged 64 years.

## DISEASES OF ANIMALS ACTS 1894 to 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Confirmed	Other											
	Dogs	Animals											
Gr. BRITAIN.													
Week ended May 17	6		6	10					92	163		60	32
Corresponding week in	1918		4	4					98	163	2	40	14
	1917		7	7					51	83	6	66	24
	1916		14	15					44	68	1	140	438
Total for 20 weeks, 1919	85	3	77	105	19	154	6	30	2904	5739	211	598	224
Corresponding period in	1918		124	139			14	38	2485	4771	229	459	154
	1917		259	294			11	20	1348	2771	364	1053	444
	1916		265	309	1	24	21	62	1300	3040	170	1924	6070

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, May 20, 1919

NOTE.—The figures for the Current Year are approximate only.

† Counties affected, animals attacked:—  
Excluding outbreaks in army horses.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1612.

MAY 31, 1919.

VOL. XXXI.

## INFLUENZA.

Equine influenza, though it has long been widely known and much discussed, is still very imperfectly understood. This was well brought out by Mr. Male's recent paper upon the subject, and especially by the Central Society's discussion of it.

Mr. Male provided a novelty in his suggestion of a possible relationship between human and equine influenza. Of course this is altogether heterodox, and it can hardly be said that Mr. Male has produced much evidence in support of his idea. The mere clinical similarity between the human and equine affections is no great argument, in face of the known fact that some diseases common to man and animals differ considerably in their symptoms and course according to the species of the subject. Again, the coincidence of human and equine influenza has so far been as much controverted as corroborated by other observers. As Mr. Male says, we are not yet in a position to dogmatically deny a relationship between the two diseases; but a strong case against the orthodox view has yet to be presented. Other members may be able to give support to the new view, and any well considered evidence would help matters forward.

Discussion occurred also upon the relation of equine influenza and contagious pneumonia; but not much light can be thrown upon this question by clinicians. We are not likely to get beyond our present doubt until the laboratory provides us with more certain and more accurate aetiological data than we possess now. The discussion upon treatment was more helpful; and perhaps the most interesting point was the generally unfavourable reports of the use of vaccines and sera. The discussion reflected the now general tendency of English practitioners to discard alleged specifics and to rely upon careful hygiene and comparatively simple symptomatic treatment, varied in accordance with the needs of the case. This offers considerable scope to individual judgement, and exchanges of experience regarding it are always useful.

Paper and discussion alike emphasized one important truth. Little as we understand equine influenza, there are few diseases against which a veterinary surgeon with a free hand can do better work under fairly favourable conditions. Every practitioner knows the enormous saving that may be effected by the all-important detection and stoppage of early cases, and subsequent careful clinical supervision throughout the outbreak.

## ON PROFESSIONAL POLITICS.

I have been interested by reading the various views of correspondents on the social status of the veterinary profession, expressed in letters which seem to have been incited by a passing remark of mine, in an article on Propaganda work—that the complaints about the social position of the profession left me quite cold, because each individual member's social position was only personal to himself.

Since there appears to be such a diversity of opinion on the matter, I should like to amplify that statement by expressing the conviction that no profession has any distinct *social* advantage over another, and that the idea that sensible people treat the profession with—as one correspondent puts it—disdain, is in my opinion quite incredible.

One letter quotes another author who refers to the writings of one Vegetius, and on that authority states that 1500 years ago the profession was regarded in Italy as a mean and contemptible occupation, and this author expresses his opinion that public view on the question has undergone little change since. As a matter of fact Vegetius was one of the greatest admirers of the veterinary art that had ever lived up to his day, and he appears to have been betrayed into high flown language solely by his painful conviction that those who devoted themselves to the study of animal medicine were not encouraged as they should be.

Vegetius himself had no mean opinion of the importance of the veterinary art, since he scoured all Italy and Greece to find men best versed in it, and made more use of them in his armies than any commander had ever done previously.

Complaints such as these that the profession is treated with "disdain" and as a "mean and contemptible occupation" at the present day, are not only highly injurious to the advancement of the profession and the proper recognition of our true position, but they are as I believe wholly untrue.

So far as the United Kingdom is concerned, although such drastic statements are still probably absolutely inaccurate, there is ample evidence that the veterinary profession has but very little *political* influence. When we see a sailor calmly in charge of the Animal Diseases Department of the State, and the various other incongruous situations, too numerous to mention, we can only long for the time when another Gilbert and Sullivan will be discovered.

Our disastrous lack of political influence is in my opinion the foundation of every important disadvantage the profession labours under. It limits our sphere of work, it keeps down our fees, it helps quack-

ery, and it allows other professions and laymen to butt into our special provinces to our manifest disadvantage.

As an example of the latter point I may refer to the many articles, letters etc., which have, during the last two or three months appeared in the press, on Rabies. Some were by "our medical correspondent" others by "A Harley Street Physician" or by "M.D.", and by various laymen. I have not seen in any one the slightest mention of a veterinary surgeon in connection with rabies at all; and the general public may be excused if the impression be formed that either the veterinary profession is defunct, or that it has nothing to do with rabies.

When, however, one takes a broader view of the profession, and observes the conditions obtaining in other countries, it is possible to cheer up considerably. In France when they require an expert on the muzzling of dogs, they do not apply to the Navy; and if a young veterinary surgeon wishes for a thorough training in bacteriology he is given it *free of charge* at the Pasteur Institute. He is not given a limited "veterinary course," but he has to study the whole science—and that very thoroughly. If he requires special instruction in Parasitology, Haematology, etc., for research work he can have it at the College de France or the School of Medicine, and no one ever dreams of differentiating, preferentially, between the practitioner of human and animal medicine.

In that country pathology is recognised only as pathology, and it would be hopeless to attempt to move the French mind from that one logical standpoint. Here, we seem to be so beset by extraordinary fads, preferences and fanciful sentiment, that I think the best way the veterinary profession can adopt to avoid being finally smothered in mental fog is to institute a systematised form of propaganda which would ensure the profession being *kept always before the public*.

One need not look very far to see that in other countries veterinary surgeons have attained positions which, in the existing state of things would be practically impossible in the United Kingdom.

Salmon (although he never went to sea) was Chief of the Bureau of Animal Industry in the United States; and his position in the world of scientific medicine is one the profession may well be proud of. Hassal, although a British veterinary surgeon, is responsible for many years of patient work in America, the results of which are well known to, and appreciated by every zoologist of importance in the world.

Gilruth, who was recently indicated in *The Record* as being now the Governor and Administrator of the Northern Territory of Australia, was for many years chief of the Veterinary Department in New Zealand, and while holding that office he was also Pathologist and Bacteriologist to the British Medical Association, and during the outbreak of Bubonic Plague, was Plague Commissioner.

When any veterinary surgeon in the United Kingdom receives appointments similar to the two latter, I, for one, shall be confidently watching for the advent of the millenium.

I had the honour of illustrating Gilruth's report on Bubonic Plague, and about 10 years ago I met Haffkine in Paris, who referred to it as a classic report in the history of Plague. I may as well admit at once he was referring to Gilruth's work, and not to my elaborate frontispiece.

Gilruth's other work in animal diseases is well known, and to my personal knowledge is often quoted on the continent as well as in American literature, and is better known in most countries probably than in the United Kingdom.

Reakes the Chief Veterinary Officer to the Government of New Zealand is not only the head of the Veterinary Department but he is also Director of the whole Stock Department; a position of affairs which may usefully be recommended for study to the British Minister for Agriculture.

Chauveau, to mention only one of the many distinguished French veterinary surgeons, was President for many years of the largest Pathological Society in the world, and he was a member of the examining boards of both the medical and veterinary professions. Although Chauveau was a veterinary surgeon he is regarded as one the most distinguished scientists of his day.

One might continue for a long time to refer to men who by their work and example have made the profession known and respected as an intellectual and scientific occupation, and such world-wide facts are not to be disregarded by practical people. Much less can they be discounted by injudicious and injurious statements regarding what some people erroneously imagine to be "public opinion."

If in the United Kingdom our peculiar sentiments and prejudices so blind us to what has been done elsewhere that we can only see the profession as it appears here—lacking in influence, apathetic, and unable to make itself heard when others try to teach us our business, we may eventually persuade ourselves that there is something inherently vulgar and wrong in the study of animal diseases and in the relief of animal suffering.

I am, however, very glad to see from a letter by Mr. St. Bel Gollidge that there is at any rate some indication of a spirit abroad, the judicious use of which would soon ensure us that sound political position we and our predecessors have long ago very justly earned.

HENRY C. WILKIE, F.R.C.V.S., F.Z.S.

#### COLONIAL APPOINTMENTS.

Now that many young members are likely to be demobilised and may desire to try their fortunes in the colonies, a word of warning may not be out of place. No young man should be tempted merely by the offer of a salary which seems to be higher than he could obtain in the mother country. There are many points to be considered in this connection, *e.g.* (1) what is the relative cost of living, (2) what status does the profession enjoy in the country offering the appointment, (3) is the profession protected against quackery.



In the case of Government Services, a salary adequate to compensate for the risks encountered, with a satisfactory pension should be insisted on. The veterinary profession is one, *Vis unita fortior*, and it will be no help to men at present in government service who are trying to raise their status, if young graduates from the mother country are obtainable at a low salary.

In South Africa, to quote a case in point, many good men have recently resigned their posts under the Union government, owing to their dissatisfaction with the prevailing conditions. The Minister of Agriculture is informed and advised by a secretary for Agriculture who, as a layman, cannot be competent to advise on matters connected with the veterinary service. Yet he has a veto on all recommendations, not only with regard to conditions of pay and promotion within the service, but also on recommendations made by the service for the more efficient carrying out of their work.

It is understood that the scale of salaries has recently been improved, but the salaries offered are far from adequate, and strong representations are being made by the veterinary staff in South Africa to the Commission on the Public services now sitting, to remove their grievances. Meanwhile it will strengthen the hands of our members in their fight out there if applicants for Government posts insist on being granted the same status and salary as are now being petitioned for by the present staff. South Africa is a rich and growing country, and it will find it to its advantage to increase its staff of qualified veterinary surgeons, even to three times its present number, and to offer such conditions of pay and pension as will attract the best class of candidate.

Let this not be to discourage young men from emigrating. There is a certain type of man—and happily, the mother country produces a good few of them to build and strengthen her empire—to whom the uncertainties of colonial life are infinitely preferable to the unadventurous routine of general practice at home. These will not be deterred from seeking their fortunes abroad, and this note is written merely to remind them of the duty they owe, as members of a learned profession, to those who have gone before.

#### A SIGNAL FLAG METHOD.

Having an extensive country practice in a wide district, I have for the last ten years used a flag system with great benefit to myself. I used to find it very annoying, often passing through a village, to find a telegram awaiting at home to go to the next farm. So I arranged with clients at any time they wanted me, to put up a small flag where it could be seen from the road. If urgent, send a message; if not, I could call when passing. They became quite enthusiastic about it, and I can tell their politics by their flags, as most conservatives use a blue, and liberals a red. I was passing through an Oxfordshire village the other day and when I returned I found a farmer had tied a piece of news-

paper on the end of a stick and tied it to a gate post. I can thoroughly recommend this practice as a saver of time, petrol and temper, and it costs nothing to work.

Faringdon.

J. H. PARKER, M.R.C.V.S.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### CAMPHORATED CARBOLIC OINTMENT IN THE TREATMENT OF FOLLICULAR MANGE.

Slavu published an account of this treatment in the *Arhiva Veterinara* of 1914. As carbolic acid is a good anti-parasitic agent, he has attempted to use it and at the same time to correct its irritant and coagulating effects upon albumen. With the latter object he has mixed it with camphor, which is also a parasiticide. He has used an ointment composed of one part liquid carbolic acid, two parts ordinary refined camphor, and twenty parts white vaseline, applied after the following technique.

The animal is clipped, even when the affection is localised; otherwise diseased parts might pass unperceived. The surface of the body is divided into four areas for the purpose of treatment. Each day one of these parts is well rubbed with the ointment; and thus, at the end of four days each has been treated in succession. The animal is next bathed with a 2% solution of sulphurated potash, and the whole process is then repeated. This goes on until each of the four divisions has been treated with the ointment three times in slight cases and four times in serious ones.

In pustular follicular mange, it is absolutely necessary to extract all the pus from the diseased parts before applying the ointment.

If too much ointment was used and if the body was divided only into three parts for treatment, toxic manifestations have appeared; but these were not serious.

Slavu has thus treated twenty-four dogs in which follicular mange had been diagnosed with the microscope. They were of various breeds (bull-dog, fox-terrier, pointer, etc.), and the ages ranged from eight months to two years. Of these twenty-four dogs sixteen had the squamous form of the disease, localised in four cases and generalised in twelve. Two others had the papular form; and the remaining six had the pustular-squamous form generalised.

With the exception of one dog which died of distemper during the treatment, all the animals treated did well. They increased in weight, the skin regained its suppleness, the hair grew again, and after from nine to sixteen days of treatment the parasites had disappeared. No recurrence of the disease was manifested, even four months after the cessation of the treatment.

The effect of the ointment is due as much to the carbolic acid as to the camphor. The camphor plays an important part as a parasiticide; for, with camphorated ointment alone, Slavu succeeded in curing sarcoptic mange and even follicular mange, though by a more prolonged treatment.

The ointment of camphorated carbolic acid is superior to carbolic ointment, because it does not cause any modification in the structure of the skin viewed microscopically, and it enables the medicament to penetrate and to come into contact with the parasites.—(*Annales de Médecine Vétérinaire*).

W. R. C.

#### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

A meeting of the Council of the National Association of Veterinary Inspectors was held at the Grand Hotel, Birmingham, on Wednesday May 14th, 1919, at 2 p.m. Present. Major Abson, D.S.O., President, (in the chair) Messrs F. W. Garnett, John Malcolm, R. C. Trigger, J. Brennan de Vine, H. J. Dawes, and the Hon. Sec. The minutes of the last Council meeting were read, confirmed, and signed by the President. Letters of apology for absence were read from Messrs George E. King, T. H. Duckworth, Lieut.-Col. Brittlebank, C.M.G., John Dunstan, R. D. Williams, Hugh Begg, James Crowhurst, F. L. Gooch, P. G. Bond, and W. W. Grasby.

Mr. JOHN MALCOLM proposed a resolution, placing on record the Council's appreciation of the distinguished services to the State which had been rendered by its President, Major Abson, and Hon. Treas. Lieut.-Col. Brittlebank, during the war, and which have been graciously recognised by His Majesty the King in the bestowal of the D.S.O. and C.M.G. respectively. This was seconded by Mr. R. C. Trigger, supported by Mr. H. J. Dawes and carried with acclamation.

Major ABSON, D.S.O., replied expressing his sincere thanks for the appreciative remarks of the proposer and others, and continuing, mentioned the various causes which had led to the suspension of any active operations by the Society during the war, and expressed his conviction that the need for such a Society was greater now than ever, and that the next year or two promised to be a critical time for veterinary inspectors, unless a combined effort were made by them to safeguard their interests under the new legislative measures which were before Parliament.

Mr. H. J. DAWES proposed a resolution placing on record the loss felt by the Association owing to the death of several members since the last meeting. This was seconded by Mr. F. Garnett and carried. The Secretary was instructed to communicate with the Secretary of the R.C.V.S., in order to obtain a complete obituary list.

The names of the following gentlemen were proposed and seconded to fill five vacancies on the Council, namely, Messrs J. Brennan De Vine, (one of the Hon. Auditors) J. G. Parr, Leicester, G. Dudgeon, Sunderland, W. Ascot, Bideford, and J. O. Powley, Victoria Road, Sutton Coldfield, the last named gentleman having been elected a member of the Association on the proposition of Mr. Malcolm, seconded by Mr. Dawes.

Mr. MALCOLM proposed that Messrs Powley and De Vine be the Hon. Auditors, Mr. Powley, being elected in the place of Mr. W. S. Carless, deceased.

Mr. GARNETT proposed and Mr. Malcolm seconded the proposition that the Council and officers, with the above additions to fill death vacancies, be re-appointed, en bloc.

#### MEETING AT NEWCASTLE.

On the proposition of Mr. Malcolm, seconded by Mr. Garnett, it was decided that the next annual meeting of the Association be held at Newcastle-on-Tyne, on Thursday July 31st, at 3 p.m. This arrangement has been made to coincide with the annual meeting of the Royal Sanitary Institute, the Veterinary Section of which will

be presided over by Mr. John Malcolm, F.R.C.V.S. The meeting of the Veterinary Section of the Royal Sanitary Institute will be held on August 1st, and an address and a demonstration given by Sir Stewart Stockman on "Rabies." The arrangements as to the meeting were left in the hands of the President, Mr. Malcolm, and the Hon. Sec.

Mr. J. Brennan De Vine kindly promised to read a paper at the annual meeting on "The position and prospects of veterinary inspectors during the period of National Re-construction."

#### FEES BY LOCAL AUTHORITIES.

A long discussion took place on the revision of fees payable by County Councils and other Local Authorities, and it was decided on the proposition of Mr. H. J. Dawes, seconded by Mr. R. C. Trigger, that members of the Association be urged to apply to their local authorities for an increase of fees up to the following minimum scale, which is now in operation in the West Riding of Yorkshire.

For each visit and inspection.	£1	1	0
For the second and every other visit on any other day if on the same round as the first	10	6	
If not on the same round	1	1	0
Re-inspections. (including Parasitic Mange)	10	6	
For post mortem examination or Microscopical examination of blood.	1	1	0

Mileage in all cases 7½d. per mile each way (or 1/3d. per mile the double journey) from Veterinary Inspector's residence.

#### BOARD OF AGRICULTURE FEES.

The question of fees paid by the Board of Agriculture and Fisheries to Local Veterinary Inspectors was raised and discussed and several recommendations made.

The Hon. Sec. was instructed to advertise in the two weekly Veterinary papers asking all veterinary inspectors to become members of the Association.

Kettering, 24/5/19. TREVOR F. SPENCER Hon. Sec.

#### PROGRESS OF VETERINARY WORK IN INDIA.

"Report on the progress of Agriculture in India for 1917-18" is to hand, published at Calcutta, with a short introduction signed by the Agricultural adviser to the Government of India, Mr. J. Mackenna. It runs to 235 pages, including 30 pages of tables of appendices, and is essentially a review of the position of the many departments coming under the head of Agriculture. Chapter V., upon veterinary progress, from which the following excerpts are taken, occupies 30 pages, and, in addition to the two sections here quoted, Administration and Inoculation, includes Cattle and Sheep-breeding, Veterinary Education and Research.

Reports from the various provinces have appeared in our pages when space has allowed, but this grouping of the Provinces gives a fuller impression of the magnitude of the Department and its work. The perennial difficulties become even more prominent—Understaffing: unattractive conditions of service: ignorance and indifference to the natives—with hopeful results in a few provinces.

"The department is much understaffed and considerable expansion is necessary if prophylactic measures for the cattle, which are the backbone of the Indian cultivator's prosperity, are to be provided on an adequate scale. Much educative work requires to be done in the districts by the veterinary staff before people will begin to understand the ways in which contagious diseases can be avoided and kept under control. This can only be achieved if more staff is provided."

[The following short notes show, *inter alia*, how military service has interfered with the work of the Department, and how the work has steadily increased in volume.]

**Bombay.** Colonel G. K. Walker, C.I.E., held charge of the department throughout the year. Out of the subordinate staff of 89 men 5 were on military duty and 8 posts were unfilled.

**Madras.** Mr. Aitchison, Principal of the Madras Veterinary College, held charge of the office of Superintendent in addition to his own duties from the 1st April, 1917, to 12th November, 1917, when Mr. F. Ware, the permanent Superintendent, again took over charge. The post of Second Superintendent sanctioned by the Secretary of State could not be filled on account of the war.

**Bengal.** Lieut.-Col. A. Smith remained in charge of the department in addition to his duties as Principal of the Bengal Veterinary College. The total number of Assistants doing military work during the year was eight.

**Bihar and Orissa.** The department was under the charge of Mr. D. Quinlan throughout the year. Of the subordinate staff three were on military duty. It is reported that as the conditions of pay are not satisfactory candidates for the service have been few and ill-qualified. The Local Government have submitted proposals to the Government of India for a great increase in the supervising staff and more attractive conditions of service for all branches of the department.

**United Provinces.** Mr. E. W. Oliver returned from leave in September, 1917, and took over charge from Mr. S. G. M. Hickey, Second Superintendent, who was officiating for him. Twelve members of the subordinate veterinary establishment were on military duty during the year under review.

A vernacular veterinary journal is issued monthly by the Society formed by the subordinate staff of the department.

**Punjab.** Colonel Farmer, C.I.E., held the post of Chief Superintendent throughout the year. Two Inspectors and 37 Assistants were working in the Military Department.

That the Veterinary Department in the Punjab is growing in popularity is evident from the fact that whereas in the quinquennium 1900-05 only 30,000 animals were treated in the hospitals, the number rose to an average of 146,000 in the quinquennium ending in 1910, while in the year under report the number of animals treated was 360,000. A further sure sign of the steady growth of appreciation shown by stock owners is the fact that the people themselves are beginning to build veterinary hospitals, and cattle insurance is also coming into favour. The department is steadily working for the improvement of cattle-breeding and there are now 1087 stud bulls at work in the province, an increase of nearly 10 per cent. on the figures for last year.

The Punjab Veterinary Association continues to flourish. Its Journal has been considerably improved and is a very valuable contribution to the vernacular veterinary literature of the country.

**Burma.** Colonel G. H. Evans was in charge of the department throughout the year with Mr. Rennie as Second Superintendent.

As regards preventive inoculation and the so-called readiness of the Burman cultivator to have his cattle inoculated, Colonel Evans makes the following remarks: "There may be an impression that cattle-owners in general jump at the opportunity of free serum injection for their cattle; if this is so, it is a fallacy. Very few are really desirous to have it done. Much tact, patience, chaff, etc., is often necessary to induce Burmans to grant

consent. With them in my opinion the chief obstacle is laziness; they hate bringing their cattle, waiting their turn, or giving a hand. If the job can be done while they sit around and smoke they don't mind. With Indians the case is quite different. They do not wish to have anything done, or be interfered with.

"When cattle are injected it is usually hopeless getting owners to mix their cattle with sick ones; they prefer to take their chance of animals contracting disease later. We have injected many animals two or three times owing to fresh cases being introduced, but, generally speaking, one injection is all owners will submit their cattle to."

**Central Provinces.** Mr. C. W. Wilson held charge of the department throughout the year. The post of Second Superintendent was vacant. Fourteen Inspectors and Assistants were on military duty.

It is gratifying to note that the department is gaining, more and more, the confidence of the people. In two years the number of cases treated by Veterinary Assistants has risen from 267,676 to 444,104.

**Assam.** Mr. W. Harris held charge of the department throughout the year. The subordinate staff was strengthened by the appointment of four new Assistants, bringing the total number to 41.

**North-West Frontier Province.** On Mr. Meadows services being placed at the disposal of the Army Department, Mr. T. F. Quirke held charge of the department in addition to that of North Punjab. One-fourth of the sanctioned scale of the subordinate veterinary staff was on military duty.

**Sind, Rajputana and Baluchistan.** Mr. J. A. G. Cattell held the post of Superintendent throughout the year, except for 13 days in March when he proceeded to Quetta for training in the Army Remount Department, Baluchistan Circle, and Khan Bahadur S. G. Haji, Deputy Superintendent, acted for him.

**Imperial Bacteriological Laboratory.** During the year under review the output of the products of this laboratory was increased to nearly double that of last year.

To meet the increasing demands for anti-rinderpest serum and to maintain rinderpest virus for use in the inoculation of animals at the military dairies, the branch laboratory at Barseilly was opened during the winter months and 404,847 doses were prepared there. During the year the demand for mallein from the Military Department increased enormously, but all indents were complied with.

Amounts of sera and vaccines manufactured at this laboratory and issued during the year 1917-18.

Name of product	Doses prepared 1917-18	Doses issued	
		1917-18	Average of previous 5 years
Rinderpest serum	2146421	2069961	1127540
Anthrax serum	14175*	19727	25020
Hæm. Septicæmia serum	216457	189428	84311
" " vaccine	117124	117124	127890
Blackwater vaccine	*	17324	16700
Mallein	191747	193147	26323

\* Prepared according to demand.

The total value of the different products calculated on the basis fixed by Government amounted to Rs. 415,080 (£27,672) against an expenditure of Rs. 336,481.

Besides serving the needs of India, this laboratory undertook to meet the request of (1) the Ministry of Agriculture, Cairo, for a supply every month of 50,000 doses of anti-rinderpest serum up to December, 1918, and (2) of the Veterinary Department of the Sudan, for 200,000 doses of anti-rinderpest serum to be supplied before September, 1918.

## PREVENTIVE INOCULATION AND LEGISLATION.

A comparison of the figures of mortality among cattle in India from rinderpest alone during the last three years, namely:—

1915-16, 95159; 1916-17, 115548; 1917-18, 143861

indicates that the ravages of rinderpest are on the increase and, even allowing for the fact that the improved system of reporting outbreaks now in vogue has resulted in a large increase in the number of deaths notified, it is permissible to enquire how it is that in spite of the increasing number of inoculations performed we are unable to stamp out the disease or minimise its ravages. The greatest difficulty in this direction is the apathy, stubbornness and ignorance of the villagers. They do not sufficiently understand the contagious nature of the disease and the ruinous results which follow from their neglect of ordinary precautions. They have not yet grasped how much isolation and disinfection help to check the disease. Further, the unrestricted movements of animals from infected areas and absence of compulsory inoculation of all cattle in the affected village and those surrounding it, are the causes most responsible for the spread of the disease. In this connection it would be well to emphasise the fact that rinderpest is a disease which *can* be stamped out and prevented from again occurring in any district, if proper veterinary police methods are employed, the reason being that the virus which causes the disease is propagated almost exclusively in the bodies of ruminants.

There is no such thing as a spontaneous outbreak, because it can always be proved that the disease is at the time prevalent somewhere in the neighbourhood and that it has been brought to the affected village either by animals suffering from the disease or by infected material.

Among the principal methods by which cattle can be protected from rinderpest are (1) the serum alone method, (2) serum and simultaneous method, (3) isolation and disinfection, and (4) inoculation with bile. The first method has been accepted as the best for India on account of its simplicity and absolute safety, and consists in the injection of a suitable dose of serum calculated according to the body weight and susceptibility of the animal. The injection of this dose of serum does not give full protection for an unlimited length of time and is used with the object of raising the power of resistance of the animals which are exposed to infection, by neutralising the causal agent, so that if they are attacked during the period of immunity they get only a mild form of the disease and become after recovery totally immune for life. The serum alone method should always be used with powers of compulsory inoculation and isolation. In order that its application in the field may be effective, all animals must be inoculated at the same time both in the affected village and in the villages in the neighbourhood, so that the site of the outbreak of the disease may be surrounded and isolated by a barrage of immunised animals, and, by the time the immunity conferred on them by the serum has disappeared, the disease will have also died out from lack of a suitable host.

This was the plan of campaign employed in South Africa, together with the simultaneous method, to stamp out the disease there. Power was placed in the hands of the controlling authority to inoculate and isolate all animals compulsorily, and the ignorance and prejudice of one owner was not allowed to endanger the stock of the neighbourhood. By these means South Africa was freed from a devastating scourge.

The Superintendent, Civil Veterinary Department, Madras, writes as follows:—

"After an extended trial in this Presidency, it must be admitted that the 'serum alone' method of inocula-

tion will not stamp out rinderpest in this country, while the conditions under which it has to be used in the villages remain as they are.

"Nothing less than compulsory inoculation will give the serum a fair chance, for, in a typical village, rarely as many as two-thirds of the cattle are produced for inoculation, and although the staff has been instructed repeatedly to return to every village for purposes of re-inoculating those animals which have already been done, the ryots get tired of producing them once a month, and when the animals eventually contract the disease from some of the uninoculated ones, and perhaps die, the serum is blamed.

"The result may be that eventually the ryots of that and other adjacent villages lose faith in the serum, refuse inoculation and re-inoculation altogether, and the disease goes on as if this department had made no effort at all in the matter."

In connection with surra also, the necessity for legislation is pointed out by Mr. Oliver, Superintendent, Civil Veterinary Department, United Provinces, in the following passage:—

"The spread of surra from its endemic areas in the tracts along the foot of the hills to the districts of Etawah, Mainpuri, Banda and Nainital, was due to the unusually extensive transport operations and frequent movements of animals during the past two years. In addition to these causes we must consider the yearly increasing facilities for travel and development of commercial intercourse between distant parts of the country, and it is easy to foresee a still further spread of infection unless energetic prophylactic measures are introduced without further loss of time. Whatever line of action is contemplated it is all important that the preventive measures taken must be swift and thorough. I am strongly of opinion that if we are to avert such a catastrophe as that which occurred in Mauritius in 1902-03, more effective legislation than at present exists should be introduced at once. In 1910, it was decided that, with certain modifications and at the discretion of Local Administrations, the Glanders and Farcy Act could be applied in cases of surra, but although this was introduced in the case of the United provinces, in some of the adjacent territories and provinces no active steps in this direction were taken. It is obvious that compulsory slaughter of all diseased animals, and isolation of suspected cases and 'in contacts' is one of the first and most important measures to be adopted, but if this rule is only enforced here and there the result cannot be anything but a costly failure. The Surra Act or a modified or amended form of it should be applied without exception throughout the whole of India. Next in importance to the destruction of all affected cases is the more complete control of the movements of all animals in the diseased localities, and powers should be acquired to declare affected areas, and, where necessary, to prohibit ingress and egress to and from such places. Rules for the closing of fairs and the prohibition of animal traffic on certain highways, if desirable, might be considered."

In this as in many other diseases the increase in the spread of infection has become very marked and it is most important that similar methods of control should be adopted throughout all India. A policy of control confined to a district or a province is a policy of half measures at which the disease will laugh.

## THE R.A.V.C. COMFORTS FUND.

## Alteration of Date of Meeting.

The Meeting of the Contributors to the above Fund notified for Tuesday, 3rd June, at 3 o'clock, is postponed to Wednesday the 4th June, at the same hour.

## THE INFLUENCE OF DIET ON TEETH FORMATION.

Some few years back there was a good deal of attention given to the question of "Rickets" in puppies, and a paper was contributed at one of the meetings of "The National" by Mr. F. W. Cousins, M.R.C.V.S. No definite conclusions were arrived at, although lack of exercise was credited with being at least a contributory cause. At that time the word "vitamines" was not invented, although some of the effects of diet were fully acknowledged. The following extracts are from the report of an Experimental Study, by May Mellanby, from the Household and Social Science Department of the London University, Kensington, to the Medical Research Committee.

The details of the experiments and a dozen illustrations of the defective teeth are omitted; but enough of the results and the line of argument are given to show a direct connection of cause and effect.

"The investigation was undertaken primarily with the object of studying—

1 The factors involved in the development of sound teeth and of the growth of the jaws in relation to the size of the teeth.

2 The factors bearing on the immunity of erupted teeth to caries and other diseases.

I propose to describe experimental work which deals with the first of the above problems and will adduce evidence to show that—

1 Hypoplasia of the teeth is caused largely by a deficient diet.

2 The factor in the diet which controls the calcification of the teeth is something of the nature of an accessory food factor (vitamine).

3 This factor has a similar distribution to that of fat-soluble A, and has recently been shown by E. Mellanby to be largely responsible for the calcification of bone, a deficiency of this substance in the diet being followed by the development of rickets.

"The part of this work to be described here has involved the examination of the teeth of those puppies used by my husband, Dr. Edward Mellanby, in the course of an extensive research on rickets made for the Medical Research Committee. Suffice it here to say that the diets consisted chiefly of white bread and separated milk, about 200 c. cm. per diem, together with the substances to be tested.

For work of this nature domesticated dogs are eminently suitable. In the first place because their normal diet is very similar to that of man, and in the second place because the formation and development of their teeth is more comparable with his than is the case with most other available animals.

In examining the jaws and teeth attention has been paid to the study of (1) the time of shedding of the deciduous teeth; (2) the time of eruption of the permanent dentition; (3) the arrangement of the teeth in the jaws; (4) the condition of the enamel, &c.; (5) the calcium content of the teeth.

## RESULTS OF EXPERIMENTS.

Three puppies of the same litter, when approximately 8 weeks old were put on to diets the only differences in which were that (a) contained 10 g. of cod-liver oil per diem, (b) 10 g. of butter, and (c) 10 g. of linseed oil. The puppies were killed 15 weeks after the diets were started. It will be observed that (a) has lost all its deciduous teeth, while all the permanent teeth are fully developed; (b) comes next in order—here some of the deciduous teeth are still firm in the jaws, while the permanent teeth are not all erupted; (c) is still further behind, both as regards the shedding of the deciduous and the eruption of the permanent teeth. The arrangement of the teeth

in the jaws is also better in (a) and (b) than in (c). The condition of the enamel varies in each case, appearing perfect in (a), slightly defective in places in (b), while in (c) the enamel on that part of the crown near the neck of the incisors is dark brown and that on the carnassials, except the top of the cusps, is dull brown."

"These experiments and others of the same type show that when linseed oil is the only fat in the diet, then there is a delay in the shedding of the deciduous teeth and in the development of the permanent dentition. The animal fats, and more particularly cod-liver oil, cause these changes to proceed in a normal way. Again, the arrangement of the teeth and their appearance is much better when animal fats have been eaten."

"As a general rule, it is difficult to associate rapid growth with ill-health, and yet we have seen in these experiments that the teeth of the more rapidly growing puppies are worse, whether the comparison is confined to the same or to another family. It seems impossible, therefore, to escape the conclusion that the malformed teeth are the result of some specific influence of the diet, such as has been suggested."

"It is always possible that chewing hard crusts, bones, etc., may improve the circulation in the developing jaws and so cause better teeth formation, but it cannot explain the results described in this paper, for in no case was hard food of any kind given. From the point of view of bacterial action and the production of toxic products, the diets would appear, in most cases, to be similar, except in so far as the fats are concerned."

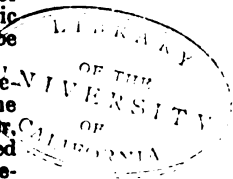
What, then, is the factor (or factors) in the diet responsible for these changes? We have seen that the puppies fed on animal fats such as cod-liver oil, butter, and suet had the best teeth, whereas those fed on linseed oil had the worst. There is evidence that other vegetable oils—for instance, arachis oil and cotton-seed oil—also have deleterious effects.

As has been already suggested, the metabolic factors normally involved in the process of teeth development may be of the nature of accessory food factors. It is now recognised that fat soluble A is present in abundance in cod-liver oil, butter, and animal fats generally, and is deficient in vegetable fats. The whole subject of accessory food factors and the part they play in health and disease is in its infancy, and therefore cannot be accepted as explaining in an unquestionable way facts such as are here described. But for the want of a better mode of expressing the general results of these experiments, one may say that a deficiency of fat-soluble A in the diet is accompanied by abnormal development of the teeth.

A child's diet is most likely to be deficient in fat-soluble A from the ninth month to about the second year of its life; that is, at the transition period between a complete milk diet and one approximating to that of the adult. The permanent teeth calcifying at this period are the incisors, the canines, and the first molars, and it is just these teeth in children that are most commonly hypoplastic and carious.

Since rickets is commonest in children during these early years, it has been suggested by Dick and others that this disease is the cause of these special teeth being so commonly defective. The work described in this paper, taken in conjunction with the experiments of E. Mellanby on rickets, puts on to an experimental basis the intimate connexion between this disease and hypoplasia of the teeth."

"If the accessory food factor theory is the real explanation of the facts described in this paper it ought to be possible to produce similar changes in the deciduous teeth of puppies by feeding a pregnant bitch on those diets which have been shown to prevent normal tooth development in young animals. Experiments on these lines are now being carried out."



"On the accessory food factor theory one can also understand why the Esquimaux in his own country, where flesh and blubber are the staple articles of diet, has such excellent teeth, while the inhabitants of Chili, who live chiefly on cereals, have teeth which are much less sound.

There is no doubt that our modern dietary is harmful as far as the teeth are concerned, and, if the results of the present work and the deductions made are correct, the teeth of the people of this country will tend to become worse, unless our diet consists in the future more of whole milk and other foods containing fat-soluble A and less of bread, rice, potatoes, etc., which are deficient in this factor.

#### SUMMARY OF RESULTS.

1 A diet containing in abundance those articles with which the fat-soluble A accessory food factor is associated—e.g., cod-liver oil, butter, &c.—allows the development in puppies of sound teeth.

2 A diet otherwise adequate but deficient in the substances with which fat-soluble A is associated brings about the following defects in puppies' teeth: (a) Delayed loss of deciduous teeth. (b) Delayed eruption of the permanent dentition; in some cases the delay in the eruption of the permanent teeth is more marked than the delay in the loss of the deciduous teeth. (c) Irregularity in position and over-lapping, especially of the incisors. (d) Partial absence of or very defective enamel. (e) Low calcium content; the deficiency in calcium salts may result in the teeth being so soft that they can be cut with a scalpel.

3 The evidence makes it clear that this is an instance of diet affecting the teeth from the inside, and is independent of bacterial sepsis and other oral conditions associated with food.

4 These results cannot be considered as being due to acute illness or "malnutrition," for (a) the improvement to the teeth by the addition of fat-soluble A containing substances (animal fats, etc.) is as characteristic as the deleterious effect of a deficient diet; (b) there is evidence that the defective teeth are most pronounced in the rapidly growing puppies, and it is difficult to associate rapid growth with illness or "malnutrition," as generally understood.

5 This work, taken in conjunction with the experiments of E. Mellanby on rickets, puts the close relationship between hypoplastic teeth and rickets on to an experimental basis.—*The Lancet*.

#### NON-PROFESSIONAL INSPECTORS.

Sir,—The article in the V.R. of the 10th inst., on non-professional inspectors constrains me to pen a few remarks on the subject.

The fault of the Board of Agriculture in the past has been too much administration by men "Born to Rule," and not sufficient practical advice to stock-owners by veterinarians fully conversant with their subject.

With reconstruction in the air, and the cry of economy and efficiency ringing through the services, the time is opportune to replace the so-called Lay Administrator with the practical veterinarian. The resulting increase in efficiency, saving of public funds, greater security to the stock-owner, and the general uplifting of the profession when the curbing yoke of lay interference with purely professional matters is once removed can hardly be estimated.

*Punch*, some years ago, very aptly and tersely described the Inspector of the Board as follows:—"To the Agriculturist he poses as the scientist, and to the scientist as the agriculturist."

The opportunity some time ago presented itself of discussing the Board's Secretary (Sir Daniel Hall F.R.S.)

with one of the Board's Laymen, and when it was suggested that the appointment of a scientific agriculturist was a step in the right direction, the reply I got was "Oh! he's *only* a scientist." The inference I was left to draw from the tone and general demeanour of the inspector was, that because Sir Daniel Hall was unfortunately a scientist it was not possible for him to be an administrator.

The old erroneous idea of "being born to rule" still obtains with the lay staff of the Board, and it is up to the profession generally (and not least the Veterinary Staff of the Board) to disabuse the Lay mind by both word and deed.

To quote only one case of overlapping and trespassing going on between veterinary and administrative work:—A horse belonging to a farmer friend contracted mange. In due course the farmer was visited by a Lay inspector of the Board who "inspected" the animal. The owner pointed out the horse in the adjoining stall as having become infected, whereupon, the inspector examined the animal and said "Oh no! that's *not* mange." Comment is needless.

As a suggestion, I throw out to the National Association of Veterinary Inspectors that a discussion on the subject of the present use of non-professional inspectors might serve some useful purpose in devising means of combating the evil. At the same time it would be as well to point out that so far as the writer is aware, the profession as a body has, in the past, taken practically no action to combat the appointment of lay inspectors, with the result that in framing their Acts and Orders the Board of Agriculture invariably arranges for all administrative work to be carried out by non-professional inspectors.

The appointment of Veterinary inspectors by the Board of Agriculture (to replace the present Lay Inspectors) working in collaboration with the local practitioners, suggests the only means of defeating and ousting the non-professional inspector.

The constitution of the Board of Agriculture seems to be but little understood by the rank and file of the Profession, and an article on the subject in your valued journal might be beneficial.

I am afraid I have written at greater length than was originally intended, but the subject being vital to the the Profession needs no apology.—Yours faithfully,

May 21st.

"NUNC AUT NUNQUAM."

#### ANÆSTHETICS.

To the Editor of the "Veterinary Record."

There are probably few British Veterinary Surgeons who will not welcome, as a great advance, the Animals Anæsthetics Bill, if it becomes law. A few points I should like to see discussed however, namely:—

1 *Docking*. It is proposed to add this operation to those requiring either general or local anæsthesia "of sufficient power to prevent pain." I should be glad to know the method of local anæsthesia which can be painlessly adopted to prevent pain in this operation, as it seems to me that four submuscular injections would be necessary (or one intraspinous injection) and it appears to me that these would be more painful than the swift, skillful guillotining of the tail itself. I have discarded searing, which used to be the most painful part of the operation, in favour of ligaturing the arteries and bandaging, and I must say that by this method docking hardly justifies the discomfort to the patient of any method of anæsthesia that I can think of. Note that pain has to be prevented, not merely deadened. I think this operation should either be left out of the Bill, or prohibited altogether.

2 *Castration*. I see no reason for excluding yearlings from the Bill and I am in favour of including all equine



castration in the first schedule. Injuries to the back can be prevented by chloroforming standing, or by the use of the Australian casting tackle which leaves one hind leg free, and gives the colt no purchase to injure himself. Castration standing is both efficient and popular, but is extremely painful, and therefore should be abolished in favour of anaesthesia.

3 *Neurectomy.* This appears in the third schedule. Why not the first? Can anyone prevent (not merely deaden, but prevent) pain in this operation by local anaesthesia? I think general anaesthesia should be compulsory.

4 *Enucleation of eye-bull.* The same remarks apply as under Neurectomy.

Perhaps the gentlemen who advised the promoters of the Bill will please inform me how pain is to be prevented by local anaesthetics in Docking, Neurectomy, and Enucleation of the eye-ball; as I should like to apply their methods, if it can be done.—Yours faithfully,

A. S. LEES.

Stamford. May 25, 1919.

#### THE ROYAL SANITARY INSTITUTE.

Patron: His Majesty the King.

The arrangements for the meeting will include:—

President's Inaugural Address.

Lecture to the Congress.—“*Marine Hygiene*,” by Deputy-

Surg.-Gen. Sir Robert Hill, K.C.M.G., C.B., C.V.O., R.N.

Popular Lecture.—“*The Heritage of Health*,” by Sir Robert Phillip, M.A., M.D., F.R.C.P., F.R.S.E.

Sectional Meetings for the reading and discussion of papers relating to:—

*Sanitary Science and Preventive Medicine.* President—Prof. G. Sims Woodhead, O.B.E., M.A., M.D., F.R.C.P., LL.D., F.R.S.E.

*Engineering and Architecture.* President—Major-Gen. Sir G. K. Scott-Moncrieff, K.C.B., K.C.M.G., R.E.

*Hygiene of Maternity and Child Welfare.* President—Sir Leslie MacKenzie, M.A., M.D., LL.D., F.R.C.P., F.R.S.E.

*Personal and Domestic Hygiene.* President—The Lady Mayoress of Newcastle.

*Industrial Hygiene.* President—Sir Thomas Oliver, M.A., M.D., D.Sc., F.R.C.P., LL.D., D.L.

Conferences:—

*Representatives of Sanitary Authorities.* President—Councillor C. T. Stableforth, J.P.

*Representatives of Port Sanitary Authorities.* President—Alderman G. C. Coates, J.P.

*Medical Officers of Health.* President—Prof. H. R. Kenwood, C.M.G., M.B., D.P.H., F.R.S.E.

*Engineers and Surveyors.* President—T. W. A. Hayward, M.Inst.C.E.

*Veterinary Inspectors.* President—James Malcolm, F.R.C.V.S.

*Sanitary Inspectors and Health Visitors.* Presidents—William Hudspeth and Miss E. Orange.

Among the long list of subjects on which Discussions are being arranged, these directly interesting the veterinary profession are:—“Milk Supply”; “Relation of County and Municipal Veterinary Inspectors to the Control of Contagious Diseases of Animals, and the Fuller Development of a wholesome Meat and Milk Supply”; “Rabies,” (The report of meeting of National Association of Veterinary Inspectors, p. 448, announces that Sir Stewart Stockman will give an address and a demonstration).

Visits are arranged during the Congress to Water Works, Sewage Disposal Works, Isolation and other Hospitals, and other places of Sanitary interest.

#### ROYAL COLLEGE OF VETERINARY SURGEONS

To the Editor of “The Veterinary Record.”

Sir,—I regret to have to report that an unfortunate error has crept into the Voting Papers recently issued for the election to Council. The number of attendances at Committee Meetings made by Mr. A. Lawson is given as 3, but this figure should have been 13. I have not yet been able to trace the cause of the mistake, but can only say that no error occurred in the Register of Attendances kept in this office. I have expressed my apologies to Mr. Lawson, and take this first opportunity of publicly correcting the error, and at the same time of expressing my regret at its occurrence.—Yours faithfully,

FRED BULLOCK, Secretary.

26th May 1919.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Anderson, W. F., Richmond, Surrey	£1	1	0
Balden, J., Stockfield-on-Tyne	1	1	0
Bradley, W. H., Dublin	1	1	0
Broad, J., Paddington	1	1	0
Broad, S. S., Paddington	1	1	0
Burt, R., Brighton	1	1	0
Burt, W., Capt. R.A.V.C.	1	1	0
Byerley, M. G., Greenwich	1	1	0
Carless, R. W., Stafford	1	1	0
Catmull, E. J., Streatham	1	1	0
Clarkson, M., Richmond, Yorks.	1	1	0
Cormack, J. L., Coventry	1	1	0
Daly, F. J., Dublin	1	1	0
Ewing, C. A., Belfast	1	1	0
Gorton, B., Lieut. R.A.V.C.	1	1	0
Hall, R., Barry, Glam.	1	1	0
Hayes, R., Capt. R.A.V.C.	1	1	0
Hepburn, W., Aberdeen	1	1	0
Herbert, R., Rochdale	1	1	0
Humphrey, C. J., Catford Hill	1	1	0
Isherwood, Capt. R.A.V.C., 1915, 1916,			
1917, 1918, 1919	5	5	0
McAfee, J., Capt. R.A.V.C.	1	1	0
McConnell, W. F., Strabane	1	1	0
Macqueen, J., London	1	1	0
Manuel, P., Crewe	1	1	0
Porritt, A., Lt.-Col., Preston	1	1	0
Prime, W. H., Upper Norwood	1	1	0
Richardson, H. E., Hedon	1	1	0
Shaw, W. F., Liverpool Road, N.	1	1	0
Squair, C. A., Reigate	1	1	0
Stordy, R. J., D.S.O., Col. R.A.V.C.	1	1	0
Taylor, W. A., Manchester	1	1	0
Tipper, L. C., Moseley, Birmingham	1	1	0
Wallis, J. E., Hailsham	1	1	0
White, J. B., Harlow	1	1	0
Wortley, W. H., Capt. R.A.V.C.	1	1	0
Previously acknowledged	743	19	10

May 27.

£785 17 10

#### REGISTRATION OF FARRIERES.

At a meeting of the Central Executive Committee of the National Farmers Union of Scotland, held in the office of the secretary, Glasgow, Mr. James Gardner, president, in the chair, it was agreed to lodge an emphatic protest against the provision of this Bill, which imposed a disability on farriers and shoemiths who had not served a period of apprenticeship and passed a qualifying examination.

## ANIMALS (ANÆTHETICS) BILL.

The following additions have been made to the Schedules:—

*First Schedule*—Horses. (The following are additions): 7 Amputations of penis, mamma, limbs. 8 Extraction of permanent molar teeth. 9 Operations for scrotal and inguinal hernia. 10 Operations for scirrhous cord and extensive tumours. 11 Trephining.

*Second Schedule*—Dogs and cats. 4 Amputations of penis, mamma, limbs. 5 Operations for scrotal and inguinal hernia.

*Third Schedule*—Bovines. (This is new matter, with the exception of trephining). 1 Ovariectomy. 2 Castration in animals a year old and upwards. 3 Operations for actinomycosis. 4 Laparotomy. 5 Amputation of penis, mamma, limbs. 6 Trephining. 7 Disbarring cattle over six months old.

*Fourth Schedule*—Horses. (The following are additions to the former Third Schedule). 3 Line and point firing. 4 Operation for umbilical hernia. 5 Urethrotomy. 6 Docking of the tail.

*Fifth Schedule*—Dogs and Cats. (This and the following one are new). 1 Enucleation of the eyeball. 2 Operation for umbilical hernia. 3 Urethrotomy.

*Sixth Schedule*—Bovines. 1 Enucleation of the eyeball. 2 Operation for umbilical hernia. 3 Rumenotomy. 4 Urethrotomy.

## Sheep Scab.—Deputation to B. of A.

At a recent meeting of the Council R.A.S.E., the Earl of Northbrook (Chairman of the Committee) reported that a deputation consisting of Mr. Davis Brown, Mr. Alfred Mansell, Mr. Ernest Mathews, and himself attended at Whitehall Place on April 2nd last to interview the President of the Board of Agriculture on the subject of the present state of sheep scab in this country.

He (Lord Northbrook) introduced the subject and suggested that it would be quite possible to eradicate sheep scab in this country as had been done in New Zealand and Tasmania. He understood that eradication of this disease had been accepted by the Board as possible. After referring to the statistics dealing with the outbreaks in this country, from which it appeared that the cases in 1917 were more numerous than in the preceding seven years, and saying that it was an alarming fact that 29 outbreaks had been reported over a widely distributed area from seventeen counties, the hope was expressed that the President of the Board would seriously grapple with the case.

Lord Ernle in reply, had explained that the figures which had been presented should be dealt with, beginning on July 1st. He said it was quite impossible for the Board, without the loyal co-operation of farmers and dealers, to deal successfully with the disease, and unless this co-operation could be obtained the Board could only do what they had been doing to stamp it out. Local authorities had power whenever sheep were brought into a county to order dipping at once, and again after a period of ten days, and that should keep the particular county secure from infection. Hitherto the only practical suggestion received from the "Royal" was that of making the owner responsible. If it were possible to provide the Board with an adequate staff of inspectors, they should be able to see that the extremely perfunctory dipping, at present too often carried on, was effective. The Committee decided that a letter should be addressed to the County Councils Association calling their attention to the powers possessed by County Councils in respect of Orders for dipping of sheep, and of the absolute necessity which existed for the authorities to carry them out.

Lord Northbrook expressed his regret that the deputation to Lord Ernle on the subject of sheep scab had not had a more satisfactory result. Lord Ernle had repeated a good many of the arguments used on a former occasion, and had again pointed out the difficulties existing in the North of Scotland and the islands in regard to the sheep of the crofters. His own impression was that Lord Ernle had not given very deep consideration to the matter, and was perfectly satisfied with the assurance given by the officer of the Board of Agriculture who was in charge of this subject that the Board were doing everything that was possible. The members of the deputation were still of the opinion that the disease could be eradicated, and that it would be eradicated if the Board would give it their serious consideration and take more drastic steps to stamp it out.

Lord Strachie said that when there was an outbreak of sheep scab some years ago he happened to be responsible for the Board of Agriculture in the House of Commons and he had to go very deeply into this matter. He was satisfied that if more stringent regulations were carried into effect it would be quite possible to stamp out the disease. He suggested that if Lord Northbrook would be so good as to bring up the question in the House of Lords a more satisfactory answer might be obtained.

## The Suffolk Horse.

The Suffolk horse may be safely described as the most ancient and the purest breed of our draught horses. The pedigree charts of the Suffolk extend as far back as 1768. The purity of the breed is conclusively proved by the uniformity of colour, the Suffolk is always of a chestnut shade, ranging from the mealy to the brown-black. His height varies from 15½ to 16½ hands; legs flat, short and clean; pasterns strong, with bone of compact quality; shoulders long, rather forward, and peculiarly well suited for draught purposes; hindquarters long, heavy and well coupled with loin and back; the legs well underneath the body, girth large, flanks well dropped, strong neck, well-formed head carried with spirit, the horse in general being long, low, and wide, with a fine amount of quality, and no point jarring against another.

The chief characteristics of the Suffolk are his great drawing power, unusual docility, activity, and longevity. He is more cheaply kept than any other heavy breed; possesses, with an iron constitution, immense power of endurance, and lasts in ordinary work almost as long again as either the Shire or the Clydesdale. Cases have been known where Suffolk mares have gone on breeding when upwards of thirty years old.

The Suffolk breeders were among the first to require a careful examination for soundness at their county show, and it was a prominent member of the Suffolk Horse Society who induced the Council of the "Royal" to adopt a similar rule.

The fact that the horse has never yet been bred in his native home in a sufficiently commercial way, no doubt largely accounts for the comparatively humble position which the Suffolk Punch occupies in the estimation of the general public. He is universally admitted to be the best agricultural horse in the world, and his quickness of action, good temper, and the persistence with which he will tug again and again at a dead pull, added to his endurance and other qualities, eminently fit him for hauling work in our towns and cities. It is an interesting fact that during the Crimean War Suffolks were found to be the only horses good enough at collar to pull the guns into line.

Considerable numbers of stallions have gone to foreign countries and to our Colonies, particularly to Russia, North and South America, New Zealand, Australia and South Africa.—"CESTRIAN" in *Live Stock Journal*.

**Control of "Patent" Medicines.**

Lord Bledisloe, in moving, during the Committee stage of the Ministry of Health Bill, in the House of Lords, to provide that the Minister of Health should not only exercise powers transferred to him, but also new powers conferred on him, informed the Peers that he proposed to add new powers enabling the Minister of Health to institute prosecutions in cases of frauds in connection with patent and proprietary medicines. He had two amendments down, and also proposed to move a new clause empowering the Minister of Health to deal with "the administration of the law governing the advertisement and sale of patent, secret, and proprietary medicines and appliances." In a later speech he reminded the House that he had sat on the Select Committee of the House of Commons which inquired into the whole condition of affairs relating to patent and proprietary medicines—a Committee which sat for three years, and whose conclusions Lord Bledisloe summed up in strong terms. That Committee had recommended that the control of patent medicines should be part of the functions of the Ministry of Health when that was set up.

Lord Sandhurst, replying for the Government, said the subject teemed with difficulty. The Committee referred to had reported that the sale of patent medicines came under six Acts, and under a variety of authorities. To adopt Lord Bledisloe's amendments would merely cumber up the Minister of Health with obligations which he could not fulfil. Dr. Addison authorised him to promise that the whole subject would be considered without delay, and proposals made to Parliament for whatever new powers were thought necessary.

Lord Buckmaster also spoke of the revelations of the Patent Medicines Report, and Lord Bledisloe agreed not to move his other amendments in Committee. He explained, however, that one amendment proposed specifically to transfer to the Minister of Health the powers possessed by the Privy Council over the qualifications and conduct of dentists, chemists, and veterinary surgeons, and also in regard to the scheduling of poisons.

When the Committee stage of the Bill was completed by the House of Lords on Tuesday Lord Bledisloe did not raise the topic again.

**DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.**

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended May 24	3		8	10			5	5	106	154	1	60	29
Corresponding week in	1918		4	5					75	153	4	36	13
	1917		9	10					40	64	4	75	27
	1916		10	11					32	63	2	123	356
Total for 21 weeks, 1919	88	3	85	115	19	154	11	35	3010	5893	212	659	253
Corresponding period in	1918		128	144			14	38	2560	4924	233	495	167
	1917		268	304			11	20	1388	2835	368	1128	471
	1916		275	320	1	24	21	62	1332	3103	172	2047	6426

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, May 27, 1919

† Counties affected, animals attacked :—Derby 1, London 4  
Excluding outbreaks in army horses.

IRELAND. Week ended May 17	...	...	...	...	...	...	...	Outbreaks	1	1	...	...
Corresponding Week in	1918	...	...	...	...	...	...	4	5	...	...	...
	1917	...	...	...	...	...	...	4	2	4	24	...
	1916	...	...	...	...	...	...	...	4	9	19	...
Total for 20 weeks, 1919	...	...	...	...	...	1	1	59	145	16	57	...
Corresponding period in	1918	...	1	1	...	...	...	65	163	7	27	...
	1917	...	2	2	...	...	1	1	208	121	841	...
	1916	...	2	6	...	...	...	29	211	119	614	...

Department of Agriculture and Technical Instruction for Ireland (Veterinary Branch), Dublin, May 19, 1919

IRELAND. Week ended May 24	...	...	...	...	...	...	...	Outbreaks	2	5	2	2
Corresponding Week in	1918	...	...	...	...	...	...	2	1	...	...	...
	1917	...	...	...	...	...	...	1	2	3	14	...
	1916	...	...	...	...	...	...	...	1	4	42	...
Total for 21 weeks, 1919	...	...	...	...	...	1	1	61	150	18	59	...
Corresponding period in	1918	...	1	1	...	...	...	67	164	7	27	...
	1917	...	2	2	...	...	1	1	210	124	855	...
	1916	...	2	6	...	...	...	29	212	123	656	...

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 26, 1919  
NOTE.—The figures for the Current Year are approximate only. \* As diseased or Exposed to Infection

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**Meetings,** Second Wednesday, May, Oct. and January

# THE VETERINARY RECORD

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FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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VOL. XXXI.

## THE ANNUAL MEETING.

Like so many of its predecessors, the annual general meeting was a very quiet affair. The attendance was but little better than it was during the war; and no member showed an inclination to start a discussion. There was certainly plenty of material for discussion in the report, which, condensed as it was, was a business-like and informative account of a very arduous and varied year's work. If the disapprobation of the Council's work had been anything like so acute and widespread as some have supposed it to be, surely some members would have been stimulated to attend the meeting and voice it.

The result of the election was not startling. Despite the heavy list of new candidates and the amount of murmuring we have had for months past at societies' meetings and in the veterinary press, the poll was but little heavier than in the two preceding years; which may well be accounted for by the men returned from service abroad. Only one Councilman of the seven that stood for re-election has lost his seat. The two successful new candidates are both well-known men, who on personal grounds would have had good chances at any election under ordinary conditions. It seems impossible to regard the election as anything but a distinct vote of continued confidence in the present Council, and an indication that the supposed dissatisfaction with it has been over-rated. Doubtless there is a good deal of discontent in the profession just now, as there is almost everywhere; but members generally see no reason to seek a remedy in changes of their legislature. In that respect probably they are perfectly right. A larger meeting and a heavier poll would have spoken better for the public spirit of the profession; but the evident decision that no great cause exists to find fault with the present Council is a good sign.

The few words that were spoken upon finance, especially those which fell from the President, deserve careful attention. An official statement that opportunities of advancing the interests of the profession have had to be let pass for lack of funds is worth noting. Voluntary subscription has been a success, and it is a hopeful feature that there is a steady improvement, for so far, every year's total has substantially exceeded that of the year before. This financial year, by its aid, we have almost made both ends meet; but it is clear that we have only done so by undesirable economies on the part of the Council. This ought to be a sufficient stimulus to a further improvement.

Following the suspension of veterinary inspections consequent on the recent disturbances, the Egyptian provinces are now faced with a severe and widespread epidemic of cattle disease.—*Times*.

## THE SEIZURE OF AN ORGAN WHEN ONLY THE ANNEXED LYMPHATIC GLANDS SHOW TUBERCULOUS LESIONS.

Nieberle and Claussen reported their studies of this question in the *Zeitschrift für Fleisch- und Milchhygiene*. Their researches were made upon bovine livers apparently showing an isolated tuberculosis of the attached glands.

Leaving out congenital infection and direct hæmatogenous infection (which, according to Joest and Noack, should be considered as very rare) the hepatic glands are exposed to three modes of contamination. The first of these is direct alteration by the lymphogenous route. Baum's researches show that the bovine hepatic glands are not strictly regional for the liver. They are also in relation with the duodenum, and receive in addition the efferent vessels of the dorsal and ventral glands of the abomasum. The duodenum and the abomasum may therefore intervene in direct lymphogenous infection of the hepatic glands.

The second mode is penetration from a tuberculous centre into the roots of the portal vein.

The third is tuberculous generalisation. The bacilli, having traversed the regional glands of the digestive or respiratory tract, reach first the lesser and then the greater circulation by way of the thoracic duct. They thus gain the liver and are arrested in the hepatic glands.

Direct infection by the roots of the portal vein is very rare. Nieberle has only seen it in disseminated and caseous tuberculosis of the mesenteric glands; and generalisation by way of the thoracic canal is usually anterior to it. Moreover, tuberculosis of the bovine hepatic glands is frequently accompanied by lesions in the lungs, the pulmonary glands, and even in the remote intra-muscular glands.

It is therefore justifiable to conclude that tuberculosis of the bovine hepatic glands is most frequently the expression of a generalised affection, and that it proceeds by the lymphogenous route from the hepatic parenchyma itself.

The authors carried out experiments which corroborate this view. They injected the expressed juice of suspected livers subcutaneously into guinea-pigs, which were destroyed two or three months later. They also cut the livers into very thin slices in order to discover macroscopic lesions. The result of these researches indicated that, in 23% of cases in which tuberculosis is apparently isolated in the hepatic glands, the liver contains tuberculous centres or Koch's bacilli. The seizure of an organ when the corresponding lymphatic glands alone present tuberculous alterations is therefore justified.—*Annales de Méd Vét.*

## ACUTE NICOTINE POISONING IN THE HORSE.

Maire recorded this case in the *Journal de Médecine Vétérinaire et de zootechnie de Lyon*. He was called to a horse suffering from colic, and found it in a condition of very pronounced prostration. The animal showed cold sweats, muscular trembling, abundant salivation, very accelerated respiration, yielding of the loins, staggering gait, infiltrated conjunctiva, projection of the membrana nictitans in front of the eye, and very marked contraction of the pupils.

These two last symptoms especially struck Maire's attention; and, on enquiry, he learned that the horse, an hour before, had been rubbed with a solution of tobacco juice to rid him of lice. Maire immediately diagnosed acute intoxication by nicotine. He bled the horse to the extent of 4 kilogrammes, gave an alcoholised infusion of coffee (1 litre of coffee with 30 grammes of alcohol added), and also gave a subcutaneous injection of 10 centigrammes of pilocarpine. A distinct improvement followed, and it was possible to walk the animal. Two hours afterwards another litre of coffee was given, and also 15 grammes of nitre in solution. The next day, the horse had quite recovered.

A quarter of a litre (1 litre—1½ pints) of tobacco juice had been diluted with about five litres of warm water. Other animals were rubbed with the same solution, but none of these showed any disturbance. (*Annales de Méd. Vét.*) W.R.C.

### Royal College of Veterinary Surgeons.

The Seventy-sixth Annual General Meeting of the Royal College of Veterinary Surgeons was held at the College, 10 Red Lion Square, W.C., on Wednesday, June 4th, Mr. Frank W. Garnett, C.B.E., President in the Chair.

The following members signed the attendance book:—Messrs. W. Reekie, J. McKinna, P. J. Simpson, W. J. Mulvey, A. W. Mason, F. C. Golden, E. A. West, James Rowe, W. Roger Clarke, F. G. Sampson, H. A. McCormack, S. Harrison, Major-Gen. L. Blenkinsop, Messrs. S. H. Slocock, J. Willett, D. J. Davies, G. A. Banham, E. E. Martin, J. J. Aitken, T. S. Price, Sir John M'Fadyean, Mr. G. Thatcher (Solicitor), and Mr. F. Bullock (Secretary).

The Secretary, having read the notice convening the meeting which appeared in the *London Gazette* of the 6th May, 1919, announced that apologies for absence had been received from the following members of Council:—Messrs. Abson, Bradley, Brittlebank, Dunstan, Gaiger, Gofton, Lawson, Sumner and Trigger.

The Secretary read the minutes of the seventy-fifth annual general meeting held on the 5th June, 1918, and they were confirmed.

#### SCRUTINEERS' REPORT.

The Secretary read the report of the Scrutineers in regard to the election of eight members of Council, certifying that the votes recorded in the voting papers for the several candidates nominated for election to Council were as follows:—

Stockman	792	Gofton	504
Bradley	751	Male	504
Lawson	539	Wharam	484
Gaiger	530	Craig	425
Willett, 407, Dunstan, 390, Locke, 342, Logan, 314, Hamilton, 287, Hill, 235, Tutt, 206, Squair, 175.			

There were 28 spoilt papers and 42 papers were received too late.

The PRESIDENT, having declared the following members duly elected to the Council, Messrs Stockman, Bradley, Lawson, Gaiger, Gofton, Male, Wharam and Craig, proposed that a hearty vote of thanks be accorded to the scrutineers for their work, which had been thoroughly and carefully done. Mr. Price seconded the motion, which was carried unanimously.

#### ANNUAL REPORT.

The Annual Report and Financial Statement was, on the motion of Mr. Price seconded by Mr. McKinna, unanimously received.

The PRESIDENT: It is usual to take the report page by page and we will follow that custom to-day. I do not think anything arises on the first page of the report, but on page 2, which deals with the meetings of the Council and the Committees, an unfortunate error has crept in with regard to the number of attendances of Mr. Lawson at the Committee meetings. He is put down as having attended only three meetings, and the number should be thirteen. It is only due to Mr. Lawson that I should make that statement. It is a very regrettable error, but I am very pleased to see that it has not affected very materially the voting. (Hear, hear). With regard to the Bye-Laws which are mentioned on page four, the members of the College will be interested to learn that they are now published separately, and any member can obtain a copy at the price of one shilling.

On the motion of Mr. West, seconded by Mr. McKinna, the Annual Report was unanimously adopted.

#### FINANCIAL STATEMENT.

The PRESIDENT: You will find the financial statement on the last two pages of the report. Has Mr. Mulvey, our worthy Treasurer, any remarks to make about it?

MR. MULVEY: I have nothing very much to say except once again to appeal to the profession to assist us with their contributions. As you will notice from the financial statement, the excess of expenditure over income for the past year was £35 8 6d. We have many calls upon us, and if the profession can see their way to help in regard to finances the Council will be deeply indebted to them.

The PRESIDENT: I can assure you, gentlemen, that until we get our Bill passed we shall be, owing to the congestion of business which is now larger than ever, very short of funds. That is a very serious matter, because you can take it from me that during the past year, going no further back than that, we could have done very many things in the interest of the profession, but we lacked the means of carrying them out. It is a deplorable position to be in, and I heartily support Mr. Mulvey's appeal to every member of the profession voluntarily to support his College by giving a fee of one guinea per annum until we get the Bill passed.

On the motion of Mr. Samson, seconded by Mr. Rowe, the financial statement was unanimously adopted.

The PRESIDENT: Gentlemen, that concludes the business of the meeting, and I thank you very heartily for your attendance to-day.

MR. REEKIE: I beg to propose a hearty vote of thanks to the President for presiding.

MR. WILLETT: I have much pleasure in seconding that.

MR. MCKINNA: I have very great pleasure in supporting it. I am glad you appreciate the work that is done by the President.

The motion was put to the meeting by Mr. Reekie and carried with acclamation.

The PRESIDENT: Gentlemen, I thank you very heartily for your kind expression of thanks. I again thank you for your attendance, which, I think, is almost a record.

The meeting then terminated.



## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Anthony, W. A., Lt.-Col. R.A.V.C.	£1	1	0
Caldwell, J., Spilsby, Lincs.	1	1	0
Castle, A. F., Capt. R.A.V.C.	1	1	0
Chambers, T., Dudley, Worcester	1	1	0
Collins, W. A., Tenterden, Kent	1	1	0
Corder, C. S., Capt. R.A.V.C., 1918-19	2	2	0
Gardner, W. B., Drogheda	1	0	0
Garside, W. F., Capt. R.A.V.C.	1	1	0
Gregory, P., Tonbridge, Kent	1	1	0
Hamilton, G. E., Holt, Norfolk	1	1	0
Harrison, G. A., Pluckley, Ashford	1	1	0
Harrison, J., Major R.A.V.C.	1	1	0
Houston, W. F., Paisley	1	1	0
Hoyland, P. E., Rotherham	1	1	0
Hynes, C. P., Lismore	1	1	0
Jack, D. S., King's Lynn	1	1	0
Jarvis, H., St. Leonards-on-Sea	1	1	0
Jones, J. Howard, Capt. R.A.V.C.	1	1	0
Johnson, E. G., Capt. R.A.V.C.	1	1	0
Kelly, T. McD., Athenry	1	1	0
Lamont, W. S., Cookstown	1	1	0
Lyon, W. M., Wooler	1	1	0
McCarmick, A., Leeds	1	1	0
MacGregor, R., Market Harborough	1	1	0
Martin, G. Dunlop, Capt. R.A.V.C.	1	1	0
Morgan, E., Faversham	1	1	0
Newsom, G., Wicklow	1	1	0
Nolans, J. W., Birr, King's Co.	1	1	0
Pickering, F., Hexham	1	1	0
Rogers, H. G., Bootle	1	1	0
Tainsh, J., Grimsby	1	1	0
Taylor, J., Edinburgh	1	1	0
Tracy, C., Capt. R.A.V.C.	1	1	0
Thornton, F. J., Dorchester	1	1	0
Southall, J., Capt. R.A.V.C.	1	1	0
Starkey, D., Capt., Hull	1	1	0
Stockman, Sir Stewart, B. of A.	1	1	0
Urmson, J., Bolton	1	1	0
Williams, E. W., Dolgelley	1	1	0
Williams, M. E., Rhondda	1	1	0
Williams, O. T., Llangefni	1	1	0
Wyly, E. H., Capt. R.A.V.C.	1	1	0
Young, T. P., Leith	1	1	0
Previously acknowledged	785	17	10

June 4.

£832 0 10

**INOCULATION OF CATTLE AGAINST REDWATER AND GALL-SICKNESS**, By LL. E. W. BEVAN, M.R.C.V.S. Fellow of the Society of Tropical Medicine and Hygiene, Government Veterinary Bacteriologist. (Issued by the Department of Agriculture, Salisbury, Rhodesia. Bulletin No. 316. [Abridged].)

The losses due to these diseases, are enormous, and may be summarised as follows:—1. Death of imported stock; shortage of bulls for improvement of local stock; loss of service to cows; unsatisfactory calves from imported stock. 2. Heavy mortality in young stock from these and associated diseases (scour, etc.). 3. Loss of growth and delayed maturity. 4. Loss of milk and dairy products.

On the basis of 10s. per head, the national loss from these causes well exceeds half a million pounds a year.

The final remedy for these difficulties will probably be found in the total eradication of the blue tick by short-interval dipping, but until this has been systematically and universally applied for some considerable time, there

will be a period of transition during which the tick and the diseases transmitted by it must persist in certain parts of the country. Moreover, it must be remembered that, when ticks are totally eradicated from an area, the live stock born and reared on it remain susceptible and contract a virulent type of the diseases if exposed on "undipped" veld. Thus it happens that those stock-owners who have for some time past consistently dipped their cattle are at present and must for some considerable time be at a disadvantage. By eliminating the ticks their cattle grow up free from and susceptible to tick-borne diseases, and if infection is delayed until they have out-grown the natural resistance associated with youth, they may suffer as severely as animals imported from tick-free countries. As the result of dipping, these men have been able to import cattle from overseas for the improvement of their stock, and, these animals have lived, they have so graded up their herds that the resistant qualities peculiar to indigenous stock have to a large extent been eliminated. It has been shewn by laboratory experiments, and proved by practical experience, that the virulence of redwater and gall-sickness becomes greatly increased by passage through cattle of improved types. In this way, if by accident infected ticks are introduced to a dipped farm and infect the improved stock on it, the virulence of the disease is of exceptional severity, and the mortality higher than in herds in which native blood predominates.

Again, should the stock reared on a dipped farm be moved to infected veld, they are likely to contract tick-borne diseases; so that the man who has succeeded, at considerable trouble and expense, in rearing valuable young animals of high quality finds to his cost that the market for such animals is limited, because of the risk of infection after purchase by stock-owners who have been less progressive in cleansing their farms.

Although dipping as a panacea for all tick-borne diseases has been preached by the Veterinary Department for many years, the transition stage through which we are now passing has been foreseen, and for the last ten years preparations have been made to cope with it. The solution of the problem has been sought in the discovery of a successful method of immunising not only imported animals, but also young stock, against tick-borne diseases, with as little damage as possible to the treated animal. After careful work and observation, it is hoped that such a method has been found.

It will be remembered that in the pre-dipping days at least 90 per cent. of all cattle imported for the improvement of our local stock succumbed. From 1909 onward attempts were made to immunise bulls introduced from overseas by inoculating them with blood containing parasites of low virulence.

[Some notes on early experiences are given.]

The qualifications which render an animal suitable for treatment are:—1. It should not exceed fifteen months of age. 2. It should not be fat, forced or pampered. 3. Its breeding should not have been such as to have weakened its constitution. 4. It should be delivered at the inoculation camp in good health, and free from ticks. 5. Females should not be pregnant, and cannot be treated except under guarantee that they are not in calf.

A great deal of distrust and misconception exists concerning the results of inoculation of imported stock, it being asserted that the operation interferes with the growth, fertility and usefulness of the animals. Much of this is not supported by fact, and after careful enquiry it has been found that, where inoculated animals have failed to give satisfaction, the fault has often been due to the carelessness and incompetence of the owner, against which no method of inoculation has yet been devised. It is most necessary that valuable animals exposed to new conditions of climate, diet and mode of

living should be given a fair chance. On circularising the owners of many of the inoculated animals, favourable reports were received from the majority, sufficiently enthusiastic to quite counter-balance the adverse criticism of the less fortunate.

The difficulties and disadvantages associated with the breeding of cattle on dipped areas can also be dealt with by inoculation of young stock, a method having been evolved dependent upon:—1. The selection of a strain of infection of low virulence. 2. The innate resistance of young cattle, and the gradual loss of such immunity. 3. The varying susceptibility of different breeds of cattle.

As has been pointed out, the virulence of a strain of redwater and gall-sickness is modified by passage through different breeds of cattle, being lowest in animals of indigenous breeds and increasing in strength by transmission through animals of exotic or imported types. By careful selection and sub-inoculations extending over a period of ten years, a strain of comparatively low virulence has been obtained, but not so mild as to be inert when applied to suitable animals. It is a matter of considerable importance that the inoculated animal shall contract the disease, inasmuch as it is only by recovery from infection that immunity is established. But since young animals possess at birth, and for some time after, according to their breeding, an appreciable degree of resistance, the inoculation must not be performed too early, that is before they become susceptible and subject to infection, or too late, when the re-action may be severe and retard their development.

[Particulars as to inoculations, and general care of the animals, with rationing for calves, concludes the bulletin].

#### REPORT OF THE GOVERNMENT VETERINARY SURGEON, CEYLON, FOR 1918.

*Assistant Veterinary Surgeons.* Mr. E. T. Hoole, G.B.V.C., Colombo; Mr. M. D. S. A. Wijayanayaka, G.B.V.C., Nuwara Eliya; Mr. G. B. de Silva, G.B.V.C., Kandy; Mr. V. A. Hoole, G.B.V.C., Ratnapura.

##### INFECTIVE DISEASES.

*Rinderpest.* There was a marked decrease during the year. Total number of cases 161, against 2076 last year. Outbreaks occurred in three Provinces, and six remained free. The total number of cases for the year outside Colombo town was 128, of which 108 died. In Colombo town 9 cases, of which 5 died. At the quarantine station 24 cases, of which 15 died.

*Foot-and-Mouth Disease.* This disease was very prevalent throughout the year, and, except the Southern, all Provinces were infected. Total number of cases 10377, against 7132 last year. As usual, the disease was of a very mild type, and spread with great rapidity. Total number of deaths 268, chiefly young sucking calves and neglected cases.

*Anthrax.* In the Provinces only 24 cases were reported. In Colombo town 3 cases, and at the quarantine station 1302 cases, amongst goats and sheep imported from South India.

*Rabies.* Seventy-four suspected cases were examined at the Bacteriological Institute, of which 23 were from Colombo town. Of these, 44 gave positive and 22 negative results. Eight were received unfit for examination. Two hundred and twenty-one persons underwent treatment at the Pasteur Institutes at Colombo and Coonoor. Thirty went to Coonoor, and 191 were treated in Colombo after the opening of the new Pasteur Institute there.

*Swine Septicæmia.* Only 30 cases were reported, all from the Western Province.

*Black Quarter.* Twenty-three cases were reported in the Southern Province, and 7 cases in Uva.

Fifteen cases of ophthalmia occurred amongst cattle in the Central Province, all recovered under treatment.

*Horses.* With the exception of one case of anthrax amongst the police horses, there was no outbreak of infectious disease during the year.

The total number of cattle and buffaloes for the whole Island is 1582060.

Compared with 1917, there has been an increase of 20 horses, and a decrease of 563 cattle, 1417 sheep and 5931 goats. Compared with 1914, the decrease in importation has been considerable—a decrease of 251 horses, 11220 cattle, 3064 sheep, and 28496 goats. Although there has been a very large decrease during the period of the war, there has been no distressing shortage of meat in the Island. The meat supply, excepting mutton, has been largely drawn from country cattle. While the stock owner benefits in pocket from the increased sale of local cattle, the complaint arises of shortage of cattle for agricultural operations.

The following figures were obtained in order to see approximately what the requirements of the Island were as regards meat supply, and the number and variety of animals slaughtered.—54896 cattle, 12091 buffaloes, and 96531 goats and sheep were slaughtered during one year (1917). Comparing these figures with the total number of animals imported in 1917, it will be seen that 61206 more cattle and 22968 more goats and sheep were slaughtered than imported; therefore, those animals must have been drawn from the live stock of the Island. The difference is even greater, as a good number of imported cattle are either for draught or cows for milking purposes.

The horses of His Excellency the Governor's Escort, the Police horses, the draught bulls of Public Works Department, Convict Establishment, and Botanic Gardens, and the Government Dairy cattle have been treated when necessary.

Thirty-eight C. M. R. horses for insurance under the Volunteer Horse Insurance Scheme have been inspected during the year.

In the early part of the year a Committee was appointed to consider the question of live stock breeding in the Island. The report will shortly be submitted to Government.

##### GOVERNMENT DAIRY.

*Manager.* Mr. P. C. J. Fernando. Foot-and-mouth disease broke out in March. Fifty-six cases occurred, and all recovered. Most of the deaths shown in the statement were due to parasitic gastritis, diarrhoea, debility, or old age. The dairy is now too cramped for land, and it is hoped to move to a new site in 1919. Land has been acquired for the purpose during the year.

Rs. 1999.50 was expended on the purchase of stock. Nineteen dairy-bred heifers were returned for calving from Ambepussa Branch Farm. Two sales were held during the year. The total amount realised was Rs. 3240.20. Thirty-one heifers and one young bull were sent to the Ambepussa Branch Farm. Had they been sold, there would have been an additional Rs. 1820 under this head. The total receipts are estimated at Rs. 47347.92, and expenditure Rs. 42347.82, leaving a balance of Rs. 5000.10. The cost of cattle foods was very high owing to war conditions.

In February the price of milk was raised from 40 to 45 cents per imperial quart, equivalent to 30 cents per bottle of 26½ ounces. The total output of milk was 23988 gallons, most of which was supplied free to Government hospitals in Colombo.

*Branch Farm, Ambepussa.* Manager. Mr. R. F. P. Jayawardena (acting).

During the year the enclosure was cleared of weeds, and buildings repaired and whitewashed. Foot-and-mouth disease broke out in August. Twenty-four of the heifers were affected, and all recovered. In February

and March there was a severe drought, and the grass was parched up, necessitating the use of paddy straw and other foods for the cattle. Twelve calves died during the year, chiefly from parasitic gastritis and diarrhoea. The total expenditure was Rs. 5624.18.

**Model Farm.** Manager. Mr. G. S. P. Dahanayaka. A few sheep are kept at this farm. In January 5 ewes and 1 ram were sold to Mr. W. A. de Vos, of Colombo, for his estate, and he reports favourably of them. In February 18 young rams were weaned out and sold to Mr. J. Mendis, who removed some of them to his estate in the Kurunegala District, and reports that they thrive well. There are several applicants for sheep, whose requests cannot be complied with at present.

In conclusion, I desire to thank the staff individually for keen work during the year. In so far as I have been able to judge by correspondence passing through the office, their efforts have also been appreciated in their districts.

G. W. STURGESS, M.R.C.V.S.,  
Colombo, Feb. 26, 1919. Government Vety. Surgeon.

#### ANNUAL ADMINISTRATION REPORT OF THE BOMBAY VETERINARY COLLEGE FOR THE YEAR 1917-18.

Mr. K. Hewlett, the Principal of the College, held charge and the staff remained unchanged throughout the year under report.

**The Students.**—There were 115 students' names on the rolls of the College at the commencement of the year. Of these eight students were eligible and appeared for the Supplementary Examination held at the end of April 1917. Of these five passed into Class B from Class A and two passed into Class C from Class B. Six students discontinued the course and one was refused permission to appear on account of his irregular attendance. The numbers were in consequence reduced to 108. The Principal at the request of the Quartermaster General in India having called for volunteers to provide veterinary staff for ships bringing mules from China to India, nine students came forward on the understanding that they would be specially examined on their return. This arrangement was sanctioned by the Director of Agriculture, and consequently the numbers who were examined at the Annual Professional Examination in November were reduced to 99, of whom 60 passed. Two of the students who went to China having returned were examined in January and passed, making a total of 62 successful candidates out of 101 examined. In the Final Year or Class C, 27 students appeared and 17 passed; in Class B 35 students presented themselves and 22 passed; in Class A 39 students presented themselves and 23 passed. Three students of Class A, six of Class B and three of Class C, although they obtained the aggregate of marks, failed to qualify in one subject and are in consequence eligible to appear for re-examination at the Supplementary Examination to be held at the end of April 1918. In addition to these there will be seven students who have returned from duty on mule ships from China.

The results of the Supplementary and Annual Examinations held in 1917-18 are:— In the Final Year 28 appeared and 17 passed, in Class B 37, and 24 passed, in Class A 44, and 28 passed.

In January 1918, 54 candidates presented themselves for admission as against 73 last year. This decrease in numbers of candidates is due to the Principal having had to discourage applicants, owing to the number in the College now being in excess of that for which teaching facilities exist (*vide* Rule 11). Of those who presented themselves, the Principal admitted 33 to Class A, 1 to Class B and 1 to Class C. The remaining candidates were refused admission on account of edu-

cational or physical unfitness. There were thus 85 admissions this year as against 41 last year and 37 in the preceding year.

There were 127 students' names on the rolls in January 1918; of these 35 were newly admitted, 45 were students promoted to a higher class, 39 were failed students and eight who had not appeared for the examination. Of the failed students seven discontinued the course and of the eight who did not appear, one left the College. There were thus 119 students' names on the College rolls at the termination of the official year as against 115 at the commencement.

**The Students' Hostel.**—The students' hostel has as usual been quite full throughout the year and accommodation therein is much sought after. All arrangements for the hostel have been carried out by Mr. Dhakmaravalla.

During the year the students have continued to avail themselves of the tennis courts. Football, hockey and cricket have also been played and several matches against other institutions have been arranged. Athletic sports were held during the year.

The health of the students has been good throughout the year.

**Riding Class, Drill, etc.**—The usual course of instruction in riding was held at the Riding School of H. E. the Governor's Body Guard at Chaupati for the final year's students and the others were put through a course of physical drill by Staff Sergeant Town, late Royal Horse Artillery, the Instructor in Shoeing.

**Clinical Instruction.**—This was carried out as usual in the Bai Sakarbai Dinshaw Petit Hospital for Animals. During the year 3,425 in-patients and 623 out-patients were treated, a total of 4,048 patients. Of these 839 were equines, 1,922 bovines and 664 others. The average daily attendance was 281.

The students have been well behaved and their attendance at lectures, demonstrations and clinical classes has been satisfactory. There have been some instances of absence from College without permission, but such have been suitably dealt with.

**The Laboratory.**—During the year under report 1,130 specimens were examined in the College Laboratory by Mr. Sowerby, the Assistant Principal and Mr. Lopez.

**Employment of Graduates.**—Of the 17 Graduates who passed out in 1917, 7 are in the service of Government or Local Bodies, 2 in the service of Native States, 1 in private practice, 2 are studying in Sanitary Surveyors Class and 5 are unemployed as yet. Of the 23 students who graduated in 1918, 21 are in the service of Government or Local Bodies, 1 is unemployed and 1 died. Of the 16 students who graduated in 1915, 12 are in the service of Government or Local Bodies and 4 are in Native State service. Thus out of a total of 56 Graduates who have passed out of the College in the last three years, 40 are in the service of Government or Local Bodies, 6 are in Native State service, 1 is in private practice, 2 are undergoing the Sanitary Surveyors Class, 6 are unemployed and 1 has died.

**The College Buildings.**—The water supply of the students' quarters was improved and special repairs to the Laboratory were carried out during the year.

**Extra Duties of the Staff.**—The Principal has this year as heretofore performed military duty throughout the year in addition to his civil duties. He holds the appointment of Deputy Assistant Director Veterinary Services (Embarkation), Bombay, with the rank of Major in the Veterinary Corps (I.D.F.). He is responsible for all veterinary work in connection with the embarkation and the Bombay Brigade and is in charge of the Embarkation Veterinary Hospital. He arranged for the supply of the veterinary personnel for a considerable number of vessels conveying remounts to the various expeditionary forces and for vessels bringing mules from Northern

China to India. The Assistant Principal, Mr. Sowerby, who holds a Commission as Major in the Bombay Garrison Artillery, was in command of a sub-district of the Bombay Coast Defences for three months and for the remainder of the year commanded his Company as usual. He assisted the Principal in his embarkation duties. Mr. Miranda, 2nd Assistant Professor, has worked in the Embarkation Veterinary Hospital and Khan Saheb Ahmed Shaikh, 1st Assistant Professor, has at times assisted him there. Mr. Lopez, the Lecturer, went in veterinary charge of a shipment of remounts to Basra. These three officers have helped the Principal and staff of the Glanders and Farcy Department in carrying out the large number of mallein tests which have been performed this year by that department and which it would have been impossible to perform without the willing assistance of these officers. Mr. Dhakmarwalla has assumed some of the ordinary routine work of the College in order to permit of these extra duties being performed by other members of the staff.

The Clerical establishment has also had to perform much extra work especially Mr. Pansare, the Head Clerk.

The Principal received instructions to convey the formal thanks of Government to Mr. Miranda for his good work in connection with the Embarkation Veterinary Hospital.

The Principal desires again to record his appreciation of the way in which all the officers of the College have performed their duties.

K. HEWLETT, I.C.V.D.,  
Principal, Bombay Veterinary College.

#### JOINT-ILL IN FOALS.

*To the Editor of the Veterinary Record.*

Sir,—I shall be much obliged if you will allow me to use your columns to intimate that this season again serum for the treatment of joint-ill in foals is being supplied gratis to members of the profession.—Yours faithfully,

J. M'FADYEAN.

Royal Veterinary College,  
Camden Town, N.W. 1., June 3.

#### ANÆSTHESIA IN ANIMALS.

From the correspondence in our daily papers and our Veterinary Journals it will be seen that there is a likelihood of an Act of Parliament compelling all operations on animals to be done under some anæsthetic.

If I might say a few words in favour of this Bill, I think as far as it goes it is a very good Bill, and in my opinion will help the profession very much; but I do think there should be no specified operations, but that all should be included.

For the last 20 years I have never done an operation except under some anæsthesia, and the operations performed have been many and various. I never had any cause for alarm or complaint, and I might say that if once a man operated under an anæsthetic he would never resort to the old method. There is the absence of increased help, and there is the comfort in controlling your patient to your requirements.

Now take the simple operation of docking. The colt or other older animal is caught, and the seat of operation put under local anæsthesia, and in a few seconds the tail can be amputated with the scalpel, and the arteries secured. There is never any evidence of pain, and the colt will stand in the same position after he is liberated. I have docked some thousands of colts of all ages, and never had to put one under restraint, beyond one man. I do all severe operations under chloroform, including parturition in ewes, and prolonged parturition in the mare.

Some weeks ago I was asked by a gentleman who is a member of the R.S.P.C.A. to castrate some colts, but I must put them under chloroform. The fee was fixed and the arrangements made. The first colt was brought out and cast on his side, and chloroform was administered; after some excitement the colt was under, and the operation performed to the owner's wish, but he thought the colt suffered a little when coming round. This I explained was the effects of chloroform and not under my control.

I then advised him to allow me to castrate the next colt under cocaine; this he consented to. The colt was cast on its side, same as the other one (which I may say is very simple and quick). After the usual antiseptic toilet the testicle was placed under cocaine, using a very long and fine needle (which is the secret of success). If the needle is plunged well into the testicle, which is very soft, the colt feels very little. After a time it comes under the anæsthetic, the scrotum is opened, the testicle is liberated, all the non-vascular parts separated, and with the castrator the operation is finished. Allow the colt to get up without any feeling of pain whatever; he walks off as if nothing had happened.

I asked the owner after if he wanted me to chloroform the third colt, but the cocaine had so pleased him, that I had to do the other the same.

At the time of writing this letter I have just operated upon a cow's teat for stricture of the duct, by opening the sinus half way up under cocaine, without the animal being held at all. The teat was laid open and re-stitched, and the cow was chewing the cud while I had the teat at my leisure.

No doubt there are others using it for their work, but if my experiences of the use of anæsthetics is a means of helping others in the cause of humanity I am satisfied.

Swanlow, Winsford.

H. BIBBEY.

#### CONFERENCE OF VETERINARY INSPECTORS.

President—JAMES MALCOLM, F.R.C.V.S.

*To the Editor of the Veterinary Record.*

Dear Sir,—Having undertaken the duties of Recording Secretary to the Conference of Veterinary Inspectors at the Royal Sanitary Institute's forthcoming Congress in Newcastle, to be held on the 1st and 2nd of August, I beg to state that Sir Stewart Stockman will give an address and demonstration on "Rabies," and the papers promised are:—

"Equine Parasitic Mange—its control and eradication," by A. Gofton, F.R.C.V.S., Chief Veterinary Inspector, Edinburgh.

"The utilization of condemned meat and other food-stuffs with waste products of slaughtering, in the manufacture of poultry, pig, and dog foods," by J. S. Lloyd, F.R.C.V.S., D.V.S.M., Chief Veterinary Inspector, and J. A. Priestly, Cleansing Superintendent, Sheffield, together with other subjects which were given in your last week's issue.

Having ascertained that many Veterinary Inspectors full-time and part-time officers—desire to be present at this important Congress, I shall be glad to receive the names of all inspectors employed by local authorities.

It is my intention to communicate with heads of departments asking them to obtain the permission of the responsible committees to allow Veterinary Officers to attend the Conference.

The Conference is held under the chairmanship of James Malcolm, F.R.C.V.S., and the Local Secretary is Thomas Parker, F.R.C.V.S., Newcastle.—I am, Sir, yours faithfully,

JAMES R. HAYHURST,  
Metropolitan Cattle Market,  
Islington, June 3, 1919. Recording Secretary.

## ON PROFESSIONAL POLITICS.

It is a long time since I have read such a sound piece of writing as that of Mr. H. C. Wilkie on this subject. I wish he would follow it up by indicating how the veterinary profession in the United Kingdom is to attain proper political influence. France has long ago recognised the value of State aid to veterinary science. The United States calls its whole hog department the *Bureau of Animal Industry*, and it sees to it that its head is a man of ability and scientific attainment in connection with animals—not a soldier, a sailor or a professional politician only. In the case of Gilruth and Reakes, is it not a fact that these men were really appointed to their positions by the Governor-General of the colonies concerned? They do not depend on the vote of the proletariat for their positions. A Governor is there with full authority and it is to the credit of these Governors that they have been very discerning men. It is not so with all our colonies. In India and South Africa a great amount of chaos prevails, and the lot of the veterinary profession there is not by any means a happy one.

It would seem that, in the United Kingdom, in order that the profession may attain the rank and position that it is entitled to, a man should be given full power to organise and administer affairs connected with veterinary science, and animal production and industry. The general lot of the veterinary profession in France is not much better than our own. The Ministry of the Interior has a pretty strong hand over it, but France has had the saving grace to associate veterinary science with the State and to aid it from the Treasury. In this way men like Chauveau have received due honour and recognition, and have been able to rise and advance. Under the present system of Government in the United Kingdom there seem to be three or four ways open to us to improve our position. Co-operation with the Universities, with agriculturists, with sympathetic M.P.s, and with the medical profession; and with all of them making certain that we keep our own hold on the right end of our stick, and preserve our needs, rights and privileges as much as possible, intact: for men acting on behalf of others are prone to go woefully astray unless frequently guided and advised. At any rate this seems to be the only way—unless some day the State gives us a surprise by recognising our worth, and putting us into undisputed possession of the positions we are entitled to, which will never be most usefully filled and properly occupied until we are there.

G. MAYALL, M.R.C.V.S.

## VETERINARY POLITICS.

Sir.—I was very interested in Mr. Wilkie's letter on the above subject which appeared in your issue of May 31st.

Mr. Wilkie's statement that the social position of the individual depends on that individual is perfectly true but I think that in grasping at the shadow he has missed the substance of the numerous letters which have appeared in the Veterinary press from time to time. I take it that the question has not been one so much of the individual as of the profession in the abstract.

There are numerous instances in England, without wandering far afield, of individuals who have held very high offices under the state and highly esteemed withal. One need only mention such men as Sir George Brown, Director of the Veterinary department of the Privy Council, of whom the late Duke of Richmond and Gordon placed on record that he was the most able organizer and administrator he had encountered—Sir Stewart Stockman, Edward Nettleship who, although distinguished in ophthalmology, never forgot up to the day of

his death that he was a veterinary surgeon—Sir John M'Fadyean who was on the Royal Commission of Tuberculosis—Dr. O. C. Bradley professor of comparative anatomy in the University of Edinburgh—Griffiths Evans who discovered the trypanosomes. There are many others one may mention did space permit.

We have also received recognition from the Board of Agriculture as evidenced by the trust placed in us in the present outbreak of Rabies. And this is all the more remarkable after the experience of the Veterinary Department of the Privy Council when during the outbreak of pleuro-pneumonia upon investigating cases which were reported as post-mortemed and found affected by certain members of our profession, it was found on exhuming the carcasses that the skins had not even been cut.

The Army has also recognised us and this prominence has been far above that given to the veterinary profession by any other army.

But it must indeed be a thick skinned and unobservant man who can say that the profession is not held in disdain and from some points of view justly so. There must, of course, be some reason for this and by studying the question it becomes apparent that the status of any profession depends on the percentage of eminent or respectable members as compared to the "blacklegs," and the greater the former the higher will be that status.

The other professions are only too willing to receive us with open arms and I have found that the medicos have always regarded veterinarians as their equals in learning and apparently delight in engaging us in the most highly scientific discussions in order to derive benefit from our knowledge, and their deference to us as a profession both in civil and military life has struck me as highly complimentary.

Like all other questions there are two sides to this one and on turning our attention to the "horsey" and "doggy" people, to say nothing of the truly ignorant, we find the exact reverse—the majority entertain the greatest contempt for us and often non-plus the youthful practitioner by openly telling him so. Several instances of this may be mentioned. Remount officers, usually "horsey" civilians, seldom or never consult their veterinary officer and I have listened with amusement to these types holding forth on the treatment of the various species which they may favour.

In the last issue of "Fur and Feather" there was an article on the "Neutering of cats" in which a "catty" lady gives forth her opinion to the world on the best period for the operation. Is it owing to the fact that she found that a great number of the cats of both sexes which she had had operated upon died as a result of the operation?

Such a state of affairs will not be altered by individual endeavour, propaganda nor political influence so long as we have practitioners who make use of "touts" or themselves "tout" for the R.S.P.C.A., actually give certificates without making an examination, cut prices and squabble with each other in and out of the police court, and are not above belittling, in the eyes of the public, their fellow practitioners, who are in many cases far more efficient than themselves, in the too often vain endeavour to promote their own advancement.

In *The Daily Telegraph* a few years ago there appeared an article from the pen of Sir E. Ray Lankester, in which he stated that veterinary surgeons held medical science in the hollow of their hands. What have we done to justify this chivalrous statement? We have adopted the attitude of complete isolation, instead of working in concord with human medical men, to whom our special opportunities and qualifications are almost indispensable in building up the edifice of pathological science and public hygiene. Is it because that we are conscious of our own inferiority in learning? We have persistently held aloof and so to speak in a water-tight compartment.

Contrary to Mr. Wilkie's statement, opportunities of wider study were afforded us by the University of Liverpool which was opposed by the majority of the profession, much to its detriment.

In spite of this veterinary surgeons may take courses at any of the Universities, certain of the medical schools and may also study immunity under Sir Almroth Wright. There is also the Lister Institute and the Brown Institution in both of which research work may be carried out, and these institutions are always ready and willing to render all possible assistance to veterinary practitioners when consulted.

Further, we can have access to the unsurpassable museum and library of the Royal College of Surgeons. But how many take advantage of such opportunities? And do we, on our part, offer such opportunities to the members of the sister profession? Are our libraries and museums worthy of a profession which desires to be looked up to as a learned one? I was surprised when collecting some information on diseases of the horse's teeth to find such a priceless collection of specimens both of human and veterinary, not to mention of wild animals, as was shown to me in the Royal College of Surgeons. There was no water-tight compartment study but embraced both branches of the profession, and one cannot help thinking that had we contributed to research on our patients and combined with the medicos, one would have been saved the thought that the medicals had trespassed on our preserves and had gained the credit.

In our profession this water-tight attitude is carried still further, the horse-doctor looks down on the cow-doctor, who in turn regards with contumely the dog and cat man, and contempt regurgitates the reverse way so that each branch despises the other. Again, the "rule of thumb" practitioner who prides himself on being "practical" despises his more scientific and perhaps more skilled confrere.

When we shall have eliminated these so-called "practical" men and replaced them by more thoroughly educated and better skilled clinicians, and developed sufficient *esprit de corps* in that those at the top will encourage those below to climb instead of neglecting or actually pushing them down, we shall see the veterinary profession greatly advanced in public opinion and with very little more assistance than afforded by a devoted and far-seeing Council.

G. O. RUSHIE GREY.

#### ROYAL ARMY VETERINARY CORPS REWARDS, HONOURS AND DECORATIONS FOR WAR SERVICE.

"To the Editor of *The Veterinary Record*."

Dear Sir,—May I suggest that there be published a list of those veterinary officers who have received the above, in a form similar to that published in the *London Gazette* giving with each name a brief account of the service of each officer with details of the particular act or acts for which the award has been made.

Much has been made of the fact that decorations which are looked upon as solely conferred for acts of gallantry to actual fighting men, have been awarded to those practically employed as non-combatants and on the lines of communication.

By the publication of such a list the profession could better judge of the merits or demerits of individual cases.

Separate lists should be prepared for each theatre of war and under the heading of Regular, Territorial, Special Reserve and Temporary.

This list should be published as a complete supplement to the regular issue of *The Record*.—Yours truly,

"DEMOBILIZED."

#### ARMY VETERINARY SERVICE

The King held an investiture in the quadrangle of Buckingham Palace, on May 22 at 11 o'clock.

The following Officers were severally introduced into the presence of The King, when His Majesty invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

THE MOST HONOURABLE ORDER OF THE BATH  
Companions—Military Division.

\* \* \* \* \*  
Lieut.-Col. ARTHUR OLVER.

THE MOST EXCELLENT ORDER OF THE BRITISH EMPIRE.  
Officers—Military Division.

\* \* \* \* \*  
Major PERCY DAYER-SMITH, Capt. DICKINSON STARKEY,  
R.A.V.C.; Major SAMUEL RICHARDS, Capt. WILLIAM  
ROBERTSON, Canadian Army Veterinary Corps.

\* \* \* \* \*  
Members—Military Division.

\* \* \* \* \*  
Capt. FREDERICK SHEEDY, East African Vety. Corps.

\* \* \* \* \*  
THE MILITARY CROSS.

\* \* \* \* \*  
Capt. SYDNEY SLOCOCK.

\* \* \* \* \*  
Capt. CHARLES MACHONACHIE (May 29).

\* \* \* \* \*  
THE DISTINGUISHED SERVICE ORDER.

\* \* \* \* \*  
Lieut.-Col. HENRY AXE (May 31).

May 23.

His Majesty the King has been graciously pleased to approve of the following immediate awards for conspicuous gallantry and devotion to duty in North Russia, conferred by Major-Gen. C. C. M. Maynard, C.B., C.M.G., D.S.O., in pursuance of the powers vested in him by His Majesty.

\* \* \* \* \*  
AWARDED THE DISTINGUISHED CONDUCT MEDAL.

\* \* \* \* \*  
34728 Vety. Sergt. F. J. FRAPE, R.A.V.C., attd. Can. Field Artillery.

For conspicuous gallantry in action. He played a decisive part in the first phase of the attack. Gathering together a number of drivers, he took charge and fought stubbornly, falling back slowly in face of superior numbers. He himself accounted for several of the enemy, this work contributing largely to the saving of the situation. By this check on the enemy time was given for preparation of the defence of the guns.

#### Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, May 21.

#### REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

The follg. Capts. relinquish the actg. rank of Maj.:—  
On ceasing to hold the appt. of A.D.V.S.:—J. J. Hilliard (Apr. 11); R. Tindle (Apr. 15); T. J. Faithfull, Spec. Res., on ceasing to hold the appt. of D.A.D.V.S. (March 11).

May 22.

The follg. relinquish the actg. rank of Lt.-Col. on ceasing to hold the appt. of A.D.V.S.:—Maj. S. F. G. Pallin, D.S.O., F.R.C.V.S. (Apr. 1); Capt. (temp. Maj.) A. Spreull, D.S.O., T.F. (April 8).

Temp. Capt. W. L. Flanagan resigns his comm. (May 23).  
Temp. Capt. S. Villar, F.R.C.V.S., relinquishes his comm. on acct. of ill-health (May 23), and retains the rank of Capt.



May 23.  
Temp. Capt. R. Spittal relinquishes his comm. on acct. of ill-health (May 24), and retains the rank of Capt.

May 24.  
Temp. Capt. E. J. Burndred relinquishes the actg. rank of Maj. on ceasing to hold the appt. of D.A.D.V.S. (April 2) (substituted for the notification in the *Gazette* of May 13).

May 29.  
The follg. temp. Capt. relinquish the actg. rank of Maj.:—R. Clunas (April 14); W. Sherriff, on ceasing to hold the appt. of D.A.D.V.S. (April 27).

Temp. Hon. Capt. J. Gregg to be temp. Capt. (May 1).  
Temp. Hon. Lt. W. E. Stribling to be temp. Hon. Capt. (March 30).

May 30.  
Can. A.V.C.—Temp. Capt. E. A. Watson retires in the British Isles (May 15).

May 31.  
Temp. Capt. T. Haigh relinquishes his comm. on account of ill-health contracted on active service (June 1), and retains the rank of Capt.).

June 2.  
Temp. Capt. A. D. R. Gordon, D.S.O., relinquishes the actg. rank of Lt.-Col. on ceasing to hold the appt. of A.D.V.S. (March 15).

Temp. Capt. L. C. Maguire relinquishes his comm. on account of ill-health (June 3), and retains the rank of Capt.

#### TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

May 21.  
Capt. F. Douthwaite resigns his comm. (May 22), and retains the rank of Capt.

May 24.  
Capt. (actg. Maj.) W. Ascott, O.B.E., relinquishes the actg. rank of Maj. on ceasing to be empld. (March 26).  
Capt. (actg. Maj.) F. W. Pawlett relinquishes the actg. rank of Maj. on ceasing to hold the appt. of D.A.D.V.S. (May 16).

Capt. (actg. Maj.) J. F. Rankin relinquishes the actg. rank Maj. on ceasing to be empld. (April 26).

June 2.  
Capt. (acting Lt.-Col.) T. D. Young, O.B.E., relinquishes the actg. rank of Lieut.-Col. on ceasing to be empld. (April 24).

Capt. (actg. Maj.) A. Douglas relinquishes the actg. rank of Maj. on ceasing to be empld. (April 24).

#### OBITUARY.

WILLIAM HENRY BEACH, Fir Grove, Bridgnorth, Salop.  
Graduated, Lond: March, 1880.  
Died 17th May, 1919, Aged 63.

#### TICK ERADICATION IN U.S.A.

The following is from an address by J. R. Mohler, Chief of the Bureau of Animal Industry at conference of B. A. I. Employees, New Orleans, in February.

"Since coming into this gathering of those so vitally interested in tick eradication, my mind has reverted to a somewhat similar but decidedly smaller meeting which was held at Richmond, Va., in the fall of 1905. The occasion was the annual convention of the Southern Commissioners of Agriculture, and the audience consisted of less than two score men. I was afforded the privilege of choosing for my topic whatever subject I considered the chief prerequisite in tick eradication and I selected the title 'The Education of the Owner of Ticky Cattle.' In those days men like one of the late Senators of South Carolina thought tick eradication

was ridiculous, and on one occasion while visiting Clemson College he said his grandfather's cattle had ticks, his father's cattle had ticks, and his own cattle had ticks, and if they were harmful he would have found it out ere this. However, long before this able man died he was an ardent tick eradicator, and the State which so signally honored him was taken out of Federal quarantine, as you all know, on the first of last December.

It is a long, tortuous trail from those early days to the present and it has been one of constant effort on all our parts to educate, re-educate, and then educate once more.

Tick eradication in the past two years has made a notable record. In 1917 the 70,754 square miles released from Federal quarantine far surpassed the record of any previous year. Again, in 1918, the release of 79,217 square miles eclipsed all previous accomplishments. These figures would command attention at any time. But they become truly remarkable when we remember that in 1917 and 1918 the United States was at war, and every energy of the American people was bent toward the one aim of whipping the Hun. Many of our Bureau men joined the colors, tens of thousands of men left the farms of the South for the army, it was difficult to ship supplies into this section because of the demands of the cantonments, everything was submerged beneath the one dominating purpose. But, despite all that, tick eradication in 1917 broke all records, and in 1918 we found that 1917 was nearly 9,000 square miles too slow.

Much of the credit for these record-breaking accomplishments belongs to you, the representatives of the Federal Government in the fight against the tick. But we should be vain and foolish if we tried to appropriate all, or even most, of the credit. We must give full recognition, in the first place, to the cooperative work of the State governments and State agricultural colleges, and the county governments. We must acknowledge the aid of such organisations as the Southern Cattle-men's Association, the Texas Cattle Raisers' Association, the Florida Tick Eradication Committee, the Southern Settlement and Development organisation the Georgia Land Owners' Association, and the Southern Pine Association. We must recognize the consistent and clear-sighted support of the daily and weekly newspaper and the agriculture and live stock journals of the South, without whose aid we might still be battling with prejudice everywhere. And we must give due credit to the associations of the bankers and other business men who have led their communities to a realisation of the benefits of tick eradication.

More than that, we must, everyone, take off our hats to the farmers, live stock raisers, and other people, in general of the South. We must remember that while these people were helping tick eradication, they were not only buying Liberty Bonds, subscribing to Red Cross and other organisations, and sending their sons to war, but were accomplishing notable things in raising the food crops that were regarded as essential to a strong America. When the slogan "The South Must Feed Itself," was sounded the farmers of the South answered. Before the war the South imported annually about \$600,000,000 worth of corn, hay, grains, mixed feed, flour, meat and meat products, dairy products, poultry and poultry products, and canned goods. There has been a great change. In 1918 the fifteen Southern States, including all the tick-infested States, produced 141,787,000 bushels more corn than they harvested in 1909. The eleven States comprising the cotton belt produced 135 per cent more wheat in 1918 than in 1909. These same States during the same period increased their oat crop 133 per cent; their hay yield, 128 per cent; Irish potatoes, 117 per cent; and sweet potatoes, 67 per cent. The same tendency is shown in live stock production. As an instance, in 1914 Mississippi marketed only 88,229

fat cattle, while in 1916 it shipped 156,237 animals to St. Louis market, an increase of 181 per cent.

When we look back over what has been done, and consider that we are sure of the increasingly strong support of the Southern people who have done such great things, there is no reason whatever to fear that tick eradication will not win the most complete success, and that through tick eradication the South will become the live stock section that it should be by reason of its climate and other natural advantages.

The total number of cattle dipped in the South Texas counties during January, 1918, was 1,033 herds, comprising 43,213 cattle. A total of 17,983 cattle, or 286 herds underwent systematic dipping, while the remainder, or 747 herds, including 25,330 cattle received preliminary dipping.—*Journ. American V.M.A.*

#### Joint-Ill Investigation.

A meeting of the council of the Clydesdale Horse Society was held in the registered office, Glasgow, Mr. James Kilpatrick, in the chair. On the motion of Mr. George A. Ferguson, the convener, the minute of this committee was adopted. Payments were authorised, amounting to £75 or thereby, in connection with this work. Serum is now being distributed, and applications for supplies from responsible veterinary surgeons should be made to Mr. Wm. Brown, M.R.C.V.S., Marischal College, Aberdeen, for the north and north-eastern districts; Prof. Charnock Bradely, M.R.C.V.S., Royal (Dick) Veterinary College, Edinburgh, for the eastern districts; and Mr. T. B. Hamilton, M.R.C.V.S., Pollokshaws Road, Glasgow, for the western and south-western districts.

#### Suspected Pigs.—Heavy Fine.

At Colchester before Mr. T. Hetherington (in the chair), Col. Tyler, Major Tufnell, and Mr. C. E. Benham, Frank Bensley, butcher's manager and dealer, Middleboro', pleaded not guilty to exposing six diseased or suspected pigs in the market.

The Town Clerk (Mr. H. C. Wanklyn) briefly outlined the Swine Fever Order, and said on the 29th March Mr. Tayler, the veterinary surgeon appointed under the Acts, saw six pigs in the market, each with symptoms of swine fever. Mr. Tayler gave instructions to Inspector Cannell to have them removed. The Inspector made inquiries, and went to the defendant's premises in Middleboro'. He admitted the pigs were his, but said he thought they were all right. The pigs were then removed, and the defendant placed them in a sty or box, in which were others, two of which were healthy, at the back of the premises.

Mr. Rowland Tayler, M.R.C.V.S., said he killed one of the pigs, made a post-mortem, and found it to be suffering from swine fever, and that had been confirmed by the Board of Agriculture.

Inspector Cannell said defendant told him he purchased them, with others, at Sexton's and he kept them 28 days before putting them on the market. Defendant sold two of the pigs to Mr. Doe, and both died.

Defendant said the pigs always appeared to be all right or he would not have put them into the market.—Cross-examined: He admitted that they looked a bit queer when he bought them, but he did not think it was swine fever. He kept three pigs for his boy, and they were quite healthy.

A fine of £15, with £1 11s. 6d. costs, was imposed.—*East Anglian Daily Times.*

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaught-tered.
	Dogs	Other Anmls											
			(a)		(a)		(b)		(b)		(b)		
Gr. BRITAIN.													
Week ended May 31	10		3	3			1	3	72	157		62	34
Corresponding week in	1918		4	4			1	4	101	194	2	38	10
	1917		4	4			2	3	30	56	5	73	28
	1916		5	5					37	89	1	109	461
Total for 22 weeks, 1919	98	3	88	118	19	154	12	38	3082	6050	212	720	287
Corresponding period in	1918		132	148			15	42	2661	5118	235	553	177
	1917		272	308			13	23	1418	2891	373	1201	499
	1916		280	325	1	24	21	62	1369	3192	173	2156	6887

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, June 3, 1919

† Counties affected, animals attacked:— London 3  
Excluding outbreaks in army horses.

IRELAND.		Week ended May 31		...	...	...	...	...	...	Outbreaks 13	...	...	...
Corresponding Week in		1918	...	...	...	...	...	...	...	1	...	...	...
		1917	...	1	3	...	...	...	...	...	2	3	14
		1916	...	...	...	...	...	...	...	...	1	7	32
Total for 22 weeks, 1919		...	...	...	...	...	...	1	1	74	150	13	59
Corresponding period in		1918	...	1	1	...	...	...	...	68	164	7	27
		1917	...	3	5	...	...	1	1	23	212	125	969
		1916	...	2	6	...	...	...	...	29	213	130	688

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, June 2, 1919  
NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection

# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1614.

JUNE 14, 1919.

VOL. XXXI.

## THE N.A.V.I.

The National Association of Veterinary Inspectors, which was formed not long before the war but lapsed into inactivity after the outbreak, is now in process of resuscitation. A meeting of the Council was held last month to decide upon the best method of accomplishing this, and especially of inducing all veterinary inspectors, both whole and part-time, to join the Association. Numerical strength is the most essential factor towards the attainment of the objects of the Association.

Every veterinary inspector may see the advisability of joining the Association. The membership subscription of five shillings per annum is quite nominal: and the advantages of such a society are self-evident. Many matters connected with veterinary inspection could be far better dealt with by a strong association of veterinary inspectors than by any other body. Our correspondence column supplied a good case in point some two months ago, when the President of the Western Counties V.M.A. wrote asking for information regarding County Council fees and mileage in other districts than his own. The Association, had it then been in that full working order to which it is hoped to bring it, could quickly have supplied this information, and also given invaluable aid in furthering the object with which the question was put—the levelling up of County Council fees. And this is only one of many similar aims which a strong association would help to attain. We are facing considerable changes in our civil life, and the veterinary public service must share in the process. A speedy and thorough re-casting of the whole conditions of veterinary inspection has never been so probable as it is now; and hence the necessity for a strong National Association to secure that it is done on good lines.

Their executive have done well in fixing the Annual Meeting at Newcastle, the day before the conference of the Veterinary Section of the Sanitary Institute of that city. Many veterinary inspectors are likely to be attracted to the latter meeting by the prospect of Sir Stewart Stockman's address and demonstration on rabies; and those who came a day earlier would strengthen the hands of the N.A.V.I. Most men could spare the extra day for such an object, and all can spare the trifling subscription for the all-important purpose of swelling the membership. The Association may prove the chief factor in bringing the veterinary civil service of the country to the position it should hold, but only upon condition of a strong membership. We have never had a better opportunity of living up to our motto of *Vis unita fortior*.

## BOVINE COCCIDIOSIS OR COCCIDIAN DYSENTERY.

A. Railliet, in the *Recueil de Médecine Vétérinaire* of the present year, gives an account of this disease, including some details of its history and distribution. The earliest ideas of it are due to Pröger, a veterinarian of the Berne district, who reported observations made upon calves which died in two or three weeks with symptoms and lesions of acute enteritis. Pieces of intestine were sent to Zürn, who found a parasite which he regarded as a gregarine. Afterwards Railliet and Lucet, Zschokke, and others, considered it a coccidium, which, on account of its specificity for cattle, was called the *Coccidium bovis*. To-day it is also known by the name of *Eimeria Zürni* (Galli-Vallerio).

Bovine intestinal coccidiosis is especially diffused in Switzerland. It has been reported in France and in Germany. In Italy cases of it have often been seen in Piedmont, in Emilia, and in Venetia. Gair has observed it in Scotland. In Africa it was observed in the Transvaal by Thielér, in British East Africa by Montgomery, and in Tunis by Ducloux. In Australia it was observed by Clelan, and in North America by Schulz, and by Th. Smith.

The disease appears in animals varying in age from six months to two years, but is particularly grave between ten and eighteen months. Smith has seen it even in sucking calves. It presents enzootic characters in young animals, and sporadic in old ones.

The affection begins with diarrhoea, or at other times with the emission of blood-clots without any other symptom. Later, the diarrhoea changes to dysentery; and in the fæces, which are rich in mucus, the blood continually becomes more abundant. There is fever, and irregularity or cessation of rumination. The animals visibly become emaciated, and show weakness of the hind quarters and a notable difficulty in rising.

The disease is almost always grave or mortal in young animals. In general, the prognosis should be guarded when disturbances of rumination appear very early. The mortality oscillates between 5% and 13%.

At first the lesions are limited to the rectum, the mucous membrane of which is thickened, hyperæmic, and sprinkled all over with hæmorrhagic points. Later (on the fifth or sixth day of the illness) the colon and cæcum are also involved; and, in cases in which the animal dies after eight or ten days from the initiation of the process, all the intestine appears involved.

The disease is transmitted by means of water. All veterinarians are agreed in recognising that

marshy waters and the grass of humid meadows are particularly dangerous. The disease appears in June or July, twenty or thirty days after the animals are taken to the pasture. It lasts all the summer, and declines towards the month of November.

As regards prophylaxy, one of the first rules to be followed is that of keeping the animals away from suspected or humid meadows. Good drinking water and dry food should be given. Affected animals must be separated, and it is necessary to remember that some animals which appear healthy may be the bearers of coccidia.

This necessitates a systematic examination of the excrements of all the cattle, and the removal of those in whose faeces parasites are found. If the disease prevails in a cow-shed, in addition to the above measures, disinfection of the ground, frequent changing of the litter, and the destruction or disinfection of faecal material are also indicated.

As treatment, Smith advises the following mixture—powder of Acacia catechu 8 grammes, powdered asafoetida 4 grammes, tincture of opium 8 grammes, creosote 4 grammes, and water 850 grammes. This makes one dose, which is given in gruel, and repeated twice daily.—(*La Clinica Veterinaria*.)

W. R. C.

#### COCCIDIOSIS BOVINE.

In 1878 Zurn noted the presence of coccidia in the intestinal mucous membrane of a calf, which had died of acute enteritis. The same year Rivolta considered the coccidium of the rabbit as distinct from that of the ox. Since then the malady has been recognised in all European countries, and in South and West Africa, and elsewhere. To it has been applied a variety of nomenclature—hæmorrhagic enteritis, red diarrhoea, coccidian diarrhoea, coccidian enteritis, dysentery, etc. Since then zoologists are not entirely agreed as to whether the parasite as affects both animals is one and the same.

The author has had in 1917 an opportunity to undertake the study of this affection in bovines, he mentions the frequency of spherical forms, different from ovoid forms found in the rabbit. Pathologically the coccidium of the ox shows no tendency to invade the liver and provoke dysentery. That of the rabbit invades the liver and provokes only diarrhoea. Coccidiosis of the rabbit is widely spread in the farms and breeding grounds. That of the ox is confined to certain regions. Guillebeau has not been able to convey the diseases from cattle to rabbits. The author in recent attempts has also been unsuccessful.

From the point of view of prophylaxis and therapeutics, it is very difficult to act against the coccidium. Numerous agents are ineffective, namely creolin, lysol, resorcin, hyposulphate of soda, tannin, nitrate of silver, sulphate of iron, alum. Atoxyl with sodium chloride should have marked effects. Chlor. of emetine and salvarsan will be tried.

The problem of disinfection of manure is very difficult.

The author notes the following conclusions:—Bovine coccidiosis is due to a special species. It is disseminated in stables, byres, and fields by affected animals. Unless disinfected properly these places retain the infecting agent.

As good prophylaxis the following precautions are essential:—

- (a) Isolation of the sick, and treatment by an agent capable of sterilising the parasite..
- (b) Disinfection of manure by sulphuric acid.
- (c) Drainage of pasture, and provision of clean drinking water.—*Archives Vet. Suisse*.

#### RED DIARRHŒA OF BOVINES

##### (INTESTINAL COCCIDIOSIS IN VENETIA).

M. Cremona, who is assistant at the clinic of the Veterinary College of Turin, reports that Bovine coccidiosis is more frequent here in Italy than is generally known. He has had opportunities to study it clinically, and to be able to diagnose it microscopically. *Coccidium bovis* develops more particularly in animals of twelve to eighteen months old pastured on the low marshes of Venetia. He has, however, noted it also in one animal of five years and in another of only six months.

In some cases the course of the disease is extremely rapid, and death may occur in four or five days, which is preceded by a rapid emaciation, attacks of convulsions and the passage continuous of blood clots.

The treatment recommended by San Lorenzo, mainly, thymol in doses of 10 to 15 grammes, gave some cures in four to five days.—*Il Nuovo Ercolani*.

L. J. K.

#### VETERINARY POLITICS.

In reply to Mr. Mayall, I should suggest that the best method we can adopt in order to acquire proper political influence is to assert our right, our full capacity, and our fixed intention to be the sole authorities on all matters connected with animal diseases, whether they may influence the public health or not; and to that end to instruct the public (and therefore all governing bodies) by means of constant propaganda not only that the veterinary profession is the sole competent body to deal with such matters, but also that we have at least as much administrative ability as any other section of the community, and can conveniently dispense with outside assistance in that respect.

Before such convictions can be impressed upon the public mind, I believe a great deal of hard work would be necessary and a considerable amount of time required. I think it could only be done by means of *continual* propaganda, but as all other professions have been so ably advertising themselves in this way—at least ever since I can remember anything—we have plenty of examples at hand of the art of keeping before the public.

I believe most of the matters referred to by Mr. McIntosh in his paper, which originated this controversy, and those commented on by many writers since, are due to apathy on the part of the veterinary profession and ignorance on the part of the public.

Professor Macqueen said, some time ago, that the profession must first induce its members to take an interest in itself. That remark cannot be too often repeated, and I believe that a great deal of our constitutional apathy is due to a want of appreciation of the fact that the progress of the individual is dependant on the progress of the community to which he belongs, and that one cannot dissociate the welfare of the one from that of the other in the case of the relationship of a man to his profession.

We are, as a profession, no longer in our childhood. We have grown up, and I, for one, am not ashamed of our manhood, but we can never become really strong without more unity of purpose. Our purpose in this connection should be the full exposition and continual driving home of actual truths about all matters for which we are, or should be responsible.

For example, we know very well that a large percentage of the meat killed in this country is submitted to no proper examination whatever; also that the amount of efficient dairy inspection which takes place in the United Kingdom is just sufficient to show what a complete sham it is, and how hypocritical is any suggestion that the State is making a serious effort at all to safeguard the public health in these directions.

This condition of affairs is due to general and very complete ignorance. For that ignorance we are to blame, as we are the proper persons to instruct; and for the shams we are largely responsible because we have not had the strength of character to compel the authorities to allow us to do what we very well know is our duty to the public.

I do not hold the view that the State will ever take the initiative in reforming matters which concern the veterinary profession, since my belief is that the State follows some distance behind public opinion, and never does anything which it is not obviously obliged to do.

The State is like a very unintelligent child which needs to have its lessons labouriously drummed into it before it can learn anything.

Other professions have gone through the hard work of forcing information about their capacities and their rights on the State, and it is high time the veterinary profession began to give some instruction in its own interests.

Mr. Grey raises some points regarding which I am not quite in accord. He does not consider political influence by means of propaganda will effect any alteration in the present state of affairs so long as certain disreputable practices are in vogue with a certain class of member.

I do not hold this opinion, for we cannot alter human nature, and we are not the profession responsible for either the growth or decay of morality. All we can do as a preventative measure is to remove temptation from those who are weak, by the improvement of the general conditions of life. That general prosperity enormously decreases crime is demonstrated in New Zealand, where the abolition of real poverty has been followed by the nearly total disappearance of serious offences.

Our only curative measure is removal from the Register, and if we may judge of our moral status from that record I think it will be found that convictions for disgraceful conduct are far more numerous in both the legal and medical profession than in our own.

It is true, our occupation does not present either the opportunity or the temptation to such crimes as embezzlement, fraud, illegal operations, etc. The smaller mean tricks to which Mr. Grey especially alludes, I can see only as evidence of the struggle for existence by those handicapped with weak and selfish natures; and that struggle it is the duty of the profession to render less acute, while punishing the offences.

I do not, however, agree with Mr. Grey that the profession is treated contemptuously. I should rather say it is treated by the general public with an indifference due to ignorance—the phenomenon is passive, not active.

I think Mr. Grey's remarks about our museums and libraries a very useful subject into which to let the daylight of free discussion. I very fully agree with him that our museums and libraries are utterly unworthy of a learned profession.

Had the veterinary profession had anything like a properly constituted museum at all in this country, the four years of war alone should have provided more pathological specimens and surgical and pathological drawings than we have actually collected in considerably over a century.

HENRY C. WILKIE, F.R.C.V.S.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Appleton, A. F., Col., Bromley, Kent	£1	1	0
Brown, J., Stirling	1	1	0
Buxton, J., Highgate	1	1	0
Goodall, T. B., Christchurch, Hants	1	1	0
Hayes, J. W., Capt. R.A.V.C.	1	1	0
Hogben, H. P., Folkestone	1	1	0
Knowles, R. W., Wisbech, Cambs.	1	1	0
MacCormack, H. A., Tufnell Park	1	1	0
McPherson, W., Huntly, Aberdeenshire	1	1	0
Moss, M., Sevenoaks	1	1	0
Sewell, W., jun., Capt. R.A.V.C.	1	1	0
Watchorn, F. W., Newtown, Mon.	1	1	0
Previously acknowledged	832	0	10

June 11.

£844 12 10

#### THANKS TO ELECTORS.

"To the Editor of The Veterinary Record."

Dear Sir,—Will you kindly allow me through the medium of the *Veterinary Record* to express my thanks to those Fellows and Members of the Royal College of Veterinary Surgeons who, by their votes, have secured my election as a Member of Council. I appreciate very highly the honour conferred upon me, and I shall endeavour to merit the confidence of the Profession.

I am, yours faithfully,

R.V.C.I., Ballsbridge,  
Dublin, June 10.

J. F. CRAIG.

Dear Sir,—May I be allowed through the medium of your paper to thank all those members who kindly gave me their vote at the Election of Council.

It was a hopeful sign to see so many new candidates come forward willing to give their time and labours on behalf of their fellow members, but when one considers that barely a third of the profession took the trouble to vote, it shows what little interest is taken in the deliberations of our governing body by the majority.

As an unsuccessful candidate I would earnestly urge that every member should give "Our Council" every support possible both morally and financially during the critical times the profession is now passing through.

6 Harley Place,  
Harley Street, N.W.  
June 6th.

Yours truly,  
J. WILLETT.

Dear Sir,—Please allow me to thank those gentlemen who recorded their votes in my favour.—Yours faithfully,  
55 Southgate Street,  
Winchester, June 8.

JOHN B. TUTT.

To the one hundred and seventy-five veterinary surgeons who recorded their votes in my favour at the recent election I beg to tender my sincere thanks.

I was entered in the fray almost before I knew myself, and my first impulse was to have my name struck out. Had I done that it would have been better, as the 175 votes would have made all the difference to some of those general practitioners who failed.—Yours faithfully,

The Gables, Reigate,  
Surrey, June 8.

CHAS. A. SQUAIR.

#### ANÆSTHESIA IN ANIMALS.

Sir,—Mr. Bibbey's article on the above is very interesting, I think a few working details would be of further interest. For instance in the case say of a Clydesdale mare foaling, who attends to the administration of the anæsthetic while Mr. Bibbey is operating, supposing the operation lasts two hours? The operator as we all know would not be in a fit state to run round to the head of the mare and to administer so much A.C.E. then return to his work behind. It looks simple and easy on paper, but what about practice? Mr. B. may oblige with a few details.

Kirkby Stephen.

R. M. MALLOCH, M.R.C.V.S.

As one of the old school, I cannot boast of being an adept in the use of anæsthetics, and was therefore much interested in Mr. H. Bibbey's article in last week's *Record*, and if not asking too much I would like Mr. Bibbey's reply to the following.

1st: What time it takes, from the moment that a yearling colt is placed in front of the operator for castration, to rope, chloroform, disinfect, operate, and the effects of the chloroform to pass off before the colt can be left with confidence? I have seen a very uncomfortable effect following chloroform on some animals. The owner of the colt also, as stated by Mr. Bibbey, "thought the colt suffered when coming round!"

2nd: I may be wrong, but it seems to me that the sharp pain induced by the plunging of a long needle into such sensitive organs as the testicles, (as both have to be pierced) will be equal, if not more acute than the dull sensation caused by the pressure of the clam on the cord.

3rd: The case of difficult parturition in a big Clydesdale mare, when only the tail and the points of the buttocks (ischii) are presented, and the hocks out of reach; would Mr. Bibbey keep the mare under the in-

fluence of the chloroform whilst he removed one or both hind legs by cutting from the stifle cross and through the hip joint, and remove the limbs by pulling the head of the femur first; eviscerate the foetus, break through the obturator foramina on each side of the symphysis, and pass a stout rope in the form of a loop, through the opening to pull the remains of the foetus away? Does any one know an easier and better way to deal with this presentation? for it is hard work!

4th: Docking with one man and without restraint. This, to me, is marvellous. For a young colt to allow anyone to stick a sharp needle through skin, muscle and bones of the tail without restraint, and the colt not show his heels! How is it done?

I would not on any account like to see or hear of any dumb animal being made to suffer unnecessary pain when undergoing an operation; yet at the same time I think there is far too much faddy, sentimental preaching about veterinary work generally. How will the new Act deal with a sheep farm with 500 to 600 ram-lambs to castrate and dock at the same time? Will they have to be chloroformed.

Aspatia.

H. THOMPSON, M.R.C.V.S.

#### QUACK BREEDING.

While we have to deplore the manufacture of many quacks, through the instruction given to men of the R.A.V.C.—a very one sided and inadequate equipment for any civil work—we should certainly protest against the official insult to the profession contained in the "Officers Guide to Civil Careers" page 49. "Veterinary Surgery. Though a license to practise as a veterinary surgeon is not essential, the diploma of the Royal College is of the greatest value to those who wish to found a successful business."

I understand that a protest has been made by our much abused Council, and in future editions this stupid sentence will be deleted.

"DIOGENES."

#### RECONSTRUCTION.

Those correspondents who have been writing about the status of the profession may well turn to the "Officers' Guide to Civil Careers," if they would get at the official estimate of our dignity and worth.

At page 49, "Veterinary," it is stated that "though a license to practice as a veterinary surgeon is not essential, the diploma of the Royal College of Veterinary Surgeons is of the greatest value to those who wish to found a successful business."

We are singled out for this insult, while intending candidates may apply for as much as £220 per annum to assist them in obtaining a diploma which is not necessary.

With R.A.V.C. non-coms. advertising themselves on the strength of having taken temperatures and done routine dressings on the one hand, and the official encouragement of Quackery on the other, there is but a poor look out for any but the officially placed or well established among our members.

"OLD OBADIAH."

#### ON PROFESSIONAL HAIR SPLITTING.

There is a certain class of writer which reminds one of a certain class of speculator in that he not infrequently tries to hedge. But hedging, and especially literary hedging, is a very subtle art. It should not be attempted by the unwary, or by the egotist, who in his efforts to prove a goose to be a swan must needs return to the original idea in all its crudity, and keep grinding away



at it with the persistence of a pre-war Italian on a street organ. Thus, on reading an amplified attempt to draw a distinction between the social and political status of the profession one seemed to catch the following refrain:—

The voice that breathed o'er England,  
From Propaganda bowers,  
Said Veterinarius must be praised,  
He is a friend of ours.

I have just remarked that hedging is a ticklish business. It cannot be accomplished by backing the same horse after a change of its name. Neither can the literary hedger get out of a doubtful investment by begging the question. Here it seems pertinent to propound a riddle: If the veterinary profession enjoys equal social advantages with all other vocations how does it happen that "Our lack of political influence is the foundation of every important disadvantage, . . . keeps down our fees, . . . helps quackery, and allows other professions and laymen to butt into our special provinces to our manifest disadvantage?" The answer is: Because the veterinary calling is treated with disdain, and that lack of political influence is merely another name for lack of social influence. In this connection one is forcibly reminded of the Baths of Leuk, where every mud-bather has, if he so desires, his own private floating table, with writing materials and a cup of coffee. But the mud is everywhere all the same. Metaphorically the mud which surrounds the profession is the same whether one calls it social or political mud. And even the optimists who write in the reflected glory of highly polished tables do not seem very hopeful that propaganda waters will remove the stains this side of the millennium in the United Kingdom. One, in those circumstances, fails to gather what good can accrue from the formation of mutual admiration societies. The great B. P. may be an ass, but it is rather cute at nosing out dope in literary provender, and may say with Hamlet, "Somewhat too much of this," when it comes across that systematised form of propaganda which the mutual admirationists had selected for its perennial consumption.

"WATCHMAN."

#### NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

Sir,—Will you be so kind as to allow me to announce that gentlemen wishing to join the above Association should send in their names to me, but *should not* enclose their subscription, which will be collected by the Hon. Treasurer, in due course. Applications for membership should be received not later than July 20th, in order that they may be put forward for election at the next Council meeting.—Yours faithfully,

London Road,  
Kettering. June 9.

TREVOR SPENCER.

#### ROYAL ARMY VETERINARY CORPS COMFORTS FUND.

The annual general meeting of the Royal Army Veterinary Corps Comforts Fund was held at the Royal College of Veterinary Surgeons, 10, Red Lion Square, W.C., on Wednesday afternoon June 4th 1919, Mr. Frank W. Garnett, C.B.E., President of the Royal College of Veterinary Surgeons, occupying the chair. The following were present:—Mrs. Blenkinsop (Hon. Secretary), Mrs. Martin (Hon. Treasurer), Mrs. Moore, Mrs. Cochrane, Mrs. Wadley, Mrs. Nichol, Mrs. Todd; Colonel Martin, Colonel Stordy, Mr. T. Salusbury Price, Mr. J. Willett and Mr. A. W. Mason.

At the opening of the meeting, Mrs. Blenkinsop (Hon. Secretary) read the following Annual Report:—

Mr. Chairman, Ladies and Gentlemen:—Before reading my very short report upon the work of the Royal Army Veterinary Corps Comforts Fund for the past year, I am asked to express the regret of several members of the Committee that they are unable, for various reasons, to be present to-day—Mrs. Thomson, Mrs. Garnett, Mrs. Kay Lees, Mrs. Dunlop Smith, Mrs. Mosley, and Mrs. McKenzie. I'm afraid we have temporarily lost, or shall I say "misplaced" Mrs. MacGowan, as two letters have been despatched to her without result. We shall hope to find her later! We will now get to the Report, as time is valuable to many who are present.

The support the Fund has received during the past twelve months is extremely satisfactory, and we have to thank about 250 subscribers who sent their subscriptions to the Hon. Treasurer direct, and to nearly as many again who gave to the Fund in local collections. For these collections we are greatly indebted to Mr. W. S. King who made the start—Mr. J. Willett quickly followed and we benefitted by £400! Other large cheques were received from Lt.-Col. Schofield, Northern Command; Lt.-Col. Brittlebank, Western Command; Colonel Anthony, Aldershot Command; Lt.-Col. Brown, The Depot, Woolwich; Lt.-Col. Stratton from the Scottish Command who has been a regular collector and contributor during the war.

Colonel Rudd from the Eastern Command began a collection which has been most satisfactorily finished by his successor Colonel Stordy; and Colonel Holmes in the Irish Command not only sent in a large cheque covering his collections, but he communicated with a staunch supporter, Mr. Ewing Johnston, who, aided by Mr. Brittain, organised the enormous ballot which resulted in a cheque for £1000 being sent to the Fund. I must not speak further upon the subject of subscriptions as our Hon. Treasurer will shortly give us her financial statement.

It was decided at the meeting held here on June 5th last year to discontinue the sending of clothing other than any woollen comforts which might be considered desirable, consequently only the following have been sent:—970 mufflers, 106 pairs of socks, 336 pairs of mittens, 68 pairs of gloves, 52 helmets, 153 caps, 10 blankets, and 60 sweaters—some 1750 woollens in all, with about 2000 handkerchiefs. Various gifts of sheets, pillow-cases, etc. were sent, with games, books, etc., to the two V.A.D. Hospitals associated with two of our Veterinary Hospitals.

The bulk of the "comforts" took the form of all kinds of games, books, notepaper, and cigarettes.

Messrs. W. H. Smith continued to forward papers and magazines weekly to Mesopotamia, Egypt, Salonika, France, Italy and, lately, Russia. These have cost about £400 which sounds a large sum, but when one thinks of the help these have been to our men, enduring all weathers from tropical sun to arctic regions, it seems to have been very well spent indeed. In addition the Camps' Library supplied us with 2000 books for which we paid the nominal sum of £1 per 100 books.

The packing has been done almost entirely by Messrs. Gamage & Co., of Holborn, they sent out the comforts in bulk to Salonika, Mesopotamia, and Egypt to be distributed as the Directors of Veterinary Service thought best. In France and Italy several large bales were sent to each of the twenty big hospitals, and one or two packages to each of the seventy-two Mobile Veterinary Sections. One package and boxes of cigarettes went to every one of the eighteen Evacuating Stations, to the four Convalescent Horse Depots, and to the three Base Depots of Veterinary Stores. Later more packages were sent out to the thirteen Mobile Veterinary Sections

with the Army of Occupation. The total charge for all this packing, supplying of crates, bales, etc., and the carriage or postage is £41 11s. 2d.

The comforts for Russia were packed by members of the Committee, and were sent free as the opportunity occurred.

Before closing I would very much like to thank all the ladies of the Committee who have so kindly helped to make the Fund continue to be the success it was during the first four years of the war, and I would particularly like to express my gratitude to Mrs. Moore—who originated the Fund—for the valuable knowledge and help she placed at my disposal. I also most heartily thank Lady M'Fadyean, Mrs. Cochrane, and Mrs. Hobday, who attended our Executive Committee meeting with the regularity that only can make consecutive work possible, and Mrs. Mosely who took over the whole of the management of the wool and the making of the woollen garments, with the most satisfactory results, and lastly, I feel we owe a great deal to our Hon. Treasurer, Mrs. Martin, who has undoubtedly had the most difficult part of the work to tackle, and the efficient way in which she has done it most fully justifies our choice of Hon. Treasurer.

Mrs. Martin (Hon. Treasurer) presented the following financial statement:—

RECEIPTS AND PAYMENTS ACCOUNT,  
1st JUNE, 1918, TO 28TH MAY, 1919.

<i>Receipts.</i>		
To Balance at Bank, 1st June, 1918	£129	14 11
Subscriptions and Donations received during the year	2313	2 3
	£2442	17 2
<i>Payments.</i>		
By Clothing, Wool and Materials	£148	2 7
Newspapers and Magazines, £398	10 0	
Games and Books	824	14 4
	1223	4 4
Printing and Stationery	10	15 0
Advertising	2	15 0
Postage, Pack'g and Sundries	2	12 8
Bank charges	17	6
	17	0 2
	£1388	7 1
Balance at Bank, 28th May, 1919	1054	10 1
	£2442	17 2

We have audited the above Receipts and Payments account for the period ended 28th May, 1919, with the books and vouchers of the R.A.V.C. Comforts Fund and certify the same to be in accordance therewith.

CALLINGHAM, BROWN & Co.,  
34 Nicholas Lane, Chartered Accountants,  
Lombard Street, E.C., 4. Hon Auditors.  
28th May, 1919.

Mr. WILLETT said he thought the fund had been most admirably administered during the past year. Administration expenses were extraordinarily low, and he was sure that all the subscribers would be very gratified to know that the money had been so excellently spent.

Mrs. BLENKINSOP mentioned that she had received the following suggestions for the disposal of the balance in the hands of the fund:—

- (i) That it should be spent on the Army of Occupation.
- (ii) That a fixed sum should be set on one side for comforts for the Army in Russia, and that the remainder should be given to the R.A.V.C. Benevolent Fund.
- (iii) That the whole of the balance should be given to the R.A.V.C. Benevolent Fund.

Col. MARTIN briefly brought to the notice of the meeting the claims of the R.A.V.C. Benevolent Fund, which he pointed out was commenced nearly twelve years ago with the object firstly of relieving distress amongst any of the Warrant Officers, N.C.Os. and men of the R.A.V.C. and their families; secondly to assist them in obtaining employment, or in any other way when they left the Army; and thirdly for the support of clubs, orphanages, institutions or any other societies having for their object the welfare of soldiers and their families. The funds were vested in four trustees, two of whom were retired officers of the R.A.V.C. and two members of the firm of Messrs. Holt, the fund's bankers, while the management was carried on by a central committee composed of administrative officers of the Aldershot Command, the Eastern Command and the London District, one officer from the War Office, and a representative from the N.C.Os. and men from the R.A.V.C. Depot. That committee was assisted by several sub-committees at all the hospitals and anywhere else where any number of R.A.V.C. personnel existed, whose duty it was to investigate cases brought before them. The objects were entirely for the benefit of the N.C.Os. and men of the R.A.V.C., the very people for whom the comforts fund was started; and he suggested there could be no better way of benefiting those people than that the surplus of the Comforts fund should be handed over for carrying on the good work of the Benevolent Fund.

The CHAIRMAN said that, as Chairman of the Comforts fund from its very beginning, he thought the suggestions that had been made for the disposal of the balance were altogether premature. Peace had not yet been signed; there was an Army of Occupation in Germany, and our forces were also in Russia, Mesopotamia, India, Egypt and other parts, consisting partly of men who required comforts for which the subscriptions had been solicited, and until all those demands had been fully discharged, he objected to the closing of the fund or of the handing over of the balance of the fund to any other organisation. To suggest such a thing was contrary to his ideas of right and justice. In his opinion the fund should be continued for another year, and if at the end of twelve months peace reigned in every part of the world, the subscribers could then with a clear conscience hand the balance over to the R.A.V.C. Benevolent Fund. Even then, he thought, in justice to the subscribers they ought to know the state of the Benevolent Fund; nothing had been said as to whether that fund required a penny. Personally, he had every reason to believe from what he had heard that the Benevolent Fund had met its obligations fully and completely in the past: but if there was reason to think that it might want more money in the future, when once the Comforts fund had fulfilled its obligations, he would be only too pleased to agree to hand the balance over to the safe keeping of the Benevolent Fund, because he knew it would be properly and thoroughly administered.

Mrs. MOORE said she was sure that everybody fully sympathised with the remarks made by the Chairman, but as the present was the Annual Meeting, nothing further could be done for a year unless the matter was brought up at the present meeting, and it was thought desirable to raise the question in view of the possibility of peace being signed at an early date. Nobody had any wish to get rid of the obligation to the men on active service, and the question had only been raised to ease matters with regard to the settlement of the business part of the fund in future. The Benevolent Fund and the Comforts Fund were worked on similar lines, and if the Benevolent Fund found they wanted more money it would be easy for them to make an application to the Comforts Fund in case of special need. But at present there was no real urgency to hand the money over to the Benevolent Fund.

Mr. WILLETT supported the President's view that it premature to deal with the matter at the present time, although he thought the ultimate residue should be handed over to the Royal Army Veterinary Corps Benevolent Fund.

Mrs. BLENKINSOP said the matter had been raised in view of a memorandum which had been received from the Charity Commission dealing with the demobilisation of war charities registered under the War Charities Act, 1916, in which the statement was made: "The Committee consider that every war charity which, in consequence of the cessation of hostilities is unable any longer to apply its funds for the precise objects entered in its register sheet, should apply to the Charity Commissioners for authority to deal with such funds."

The CHAIRMAN ruled that that statement did not apply to the Comforts Fund, because it was still able to apply its funds to the precise object for which it was formed.

Mrs. BLENKINSOP said that there was a consensus of opinion that the men did not now require so many comforts as they did before; they were very much better off.

The CHAIRMAN enquired whether the R.A.V.C. Benevolent Fund required the money.

Colonel MARTIN replied that he believed the Benevolent Fund was very well off, but it was a permanent fund, as compared with the Comforts Fund which was a temporary fund.

The CHAIRMAN thought that it would be desirable to defer any final decision with regard to the handing over of the accumulated funds for the next twelve months, and that the matter should be decided at the next Annual Meeting or at a special meeting called for the purpose.

After further discussion it was unanimously resolved, on the motion of Colonel Sturdy seconded by Mr. Willett, that the question of the disposal of the balance should be deferred until such time as the Comforts Fund was no longer required.

The Annual Report and statement of accounts having been unanimously adopted,

The CHAIRMAN, in moving a hearty vote of thanks to Mrs. Blenkinsop, Mrs. Martin, Mrs. Moore and the other ladies who had worked in such a splendid manner on behalf of the fund, said their record was a magnificent one and deserved the highest commendation of all the members of the profession. He was sure that he was voicing the sentiments of everyone when he said they were deeply grateful to the ladies for the services they had rendered.

The resolution was carried by acclamation.

Mrs. MOORE, in moving a resolution of thanks to Mr. Garnett and the civilian members of the profession for the help and assistance they had rendered to the fund, said that although it was not, perhaps, an up-to-date opinion, there was no doubt that the ladies who had worked in making the comforts fund such a great success could not have done anything without the help of the men. If the men had not given the sinews of war the comforts would not have been forthcoming, and she hoped that the civilian members of the profession who had so heartily responded to the appeals that had been made would accept the grateful thanks of the Committee for their generosity.

Mrs. BLENKINSOP seconded the motion, which was carried by acclamation, the President subsequently briefly acknowledging the compliment.

The meeting closed with a hearty vote of thanks to the Hon. Auditors, Messrs. Houghton and Brown & Coy., Chartered Accountants.

### Parasite Mange (?) Fine 21s.

At Aldershot Police Court on Thursday, June 5th, Thomas Holloway, horsekeeper to Mr. W. J. North, was summoned for a breach of the Parasitic Mange Order.

Mr. Norman Clinton defended, and pleaded not guilty.

Police-Sergeant Coole said that on the 6th May he inspected Mr. North's stables in Sebastopol Road. Defendant, the horsekeeper, was there. He inspected seven horses there, and saw a bay gelding and a brown pony. The gelding was in a very bad state, covered with bare patches where the hair had fallen off, and the hair was off the pony's neck and shoulder, but it was not in such a bad state as the gelding. In his opinion they were both suffering from mange. He asked defendant if he was responsible for the cleanliness of the horses, and he replied that he was. He stated that he had not called in a veterinary surgeon, and added, "The bay horse breaks out like that twice every year. It has been like it now for about three weeks. It's the same horse Mr. Marshall saw about two years ago, and he told us then it was eczema, and I have been treating it for that now." Both horses had been treated with a greasy preparation. Witness told him to isolate the animals, and reported the facts.

In cross-examination, the witness said that parasitic mange was contagious. He examined 20 horses in the stables, and found nothing wrong with 18 of them. He was not prepared to swear the two horses were not suffering from eczema. He had seen the pony that morning, and it appeared to be all right. It was not a bad case when he saw it. He subsequently saw Mr. North, who corroborated the statements made by the defendant.

Mr. C. Marshall, M.R.C.V.S., said that on the 7th May he examined the gelding, and found it suffering from parasitic mange. He also saw the pony, and found it slightly affected on the wither with parasitic mange, probably only a few days.

In cross-examination, the witness said he was prepared to swear the gelding was not suffering from eczema. It had been bad two or three weeks. If it was in a stall by itself, but not in contact with others, he would not expect to find any of the others infected.

Mr. Clinton said the defence was that this was not parasitic mange, and pointed out that if the disease had been so bad as alleged it was natural to assume that one or two others would be affected. He said that the pony had not been treated since the sergeant's visit, and was in the police yard open for the inspection of the magistrates.

Defendant gave evidence that the bay gelding had broken out with eczema twice a year for the last four years, and he treated it by rubbing blue ointment on: He had done nothing to the pony since May 6th except groom it.

Mr. J. R. Carter, M.R.C.V.S., of Aldershot, said he was in Mr. North's stables two or three times a week. He knew the bay gelding well, and had frequently seen it, but saw no signs of parasitic mange. It was suffering from eczema. On the 8th and 26th May he took scrapings and made a microscopic examination, and found no signs of parasitic mange. He applied the same test to the pony, with the same result.

Replying to the magistrates, the witness said there would not be a germ under every scale, and it might be possible for one man to take a scraping and find a germ and another man to take a scraping and find no germs.

Mr. J. A. Cunningham, M.R.C.V.S., Guildford and veterinary inspector for the Borough of Guildford, said he inspected the two animals on the 15th May. He took two scrapings from the pony, and on microscopic examination found no parasite.

Because you find one parasite does it follow the horse is suffering from parasitic mange?—I should say a stray parasite does not constitute the disease.

He examined the bay on the same date, and came to the conclusion it was suffering from some form of eczema.

In cross-examination witness said he would not condemn a horse on the evidence of one parasite. He had frequently come across eczema, which was comparatively common, and it is comparatively common for a horse to break out with eczema once or twice a year.

Replying to the Chairman, he said that from the appearance of the skin, if it had been parasitic mange, it would have required treatment for three months. Blue ointment was used for eczema and parasitic mange.

The magistrates convicted and imposed a fine of 21s, the Chairman saying they must accept the positive evidence that one germ was found.—*Aldershot News*.

#### The Control of Contagious Abortion.

The Board of Agriculture, as at present advised, thinks that a material reduction in the prevalence of abortion in cattle by means of administrative Orders is only to be looked for if such Orders include provisions for enforcing restrictions on the movement of every cow found on infected premises at the time of each outbreak for a long period thereafter, together with the compulsory slaughter of every cow which had aborted. Moreover, such drastic measures, even if practicable, could not be relied on with certainty to secure the eradication of abortion.

These conclusions are based on the following facts, which have been brought out by the study of the disease:—

- The most important factor in the spread of abortion is the pregnant cow on infected premises which gives no indication of infection; the movement of every such animal would have to be controlled.
- Many infected cows do not abort, but may nevertheless be infective to others, so that the visible act of abortion cannot be made the standard for control, and owners would not be in a position to report such infective cows, as they could not identify them.
- A cow infected by natural infection is a potential carrier of infection for so long a period that the necessary restrictions on movement would place insupportable burdens on owners.

With this information before them, the Board are of opinion that the best interests of farmers and breeders would be served by an educational policy advocating general hygienic measures which may be taken by owners themselves for the prevention and control of abortion, and also by action designed to minimise the losses in badly affected herds by means of the artificial immunisation of animals against the disease before pregnancy. With this purpose in view, the Board are prepared to continue the issue of the vaccine prepared at their laboratory at New Haw, Weybridge, which is already being used widely by owners having infected herds, and to supply advice to the owners of infected herds suitable to the special circumstances of each case.

The Board are aware of the general feeling in favour of an Order prohibiting the exposure in a public market of at least animals which have recently aborted. Such an Order could not however, be made effective in view of the difficulty indicated above of diagnosis of the disease in many of such animals in the markets.

#### OBITUARY.

Colonel R. POYSER, D.S.O., F.R.C.V.S., late R.A.V.C.  
Graduated, Lond: April, 1864.  
At Charlton, Kent, on 4th June, Aged 77.

#### BIRTHDAY HONOURS.

The King has been pleased, on the occasion of His Majesty's Birthday, to give orders for the following appointments to the Most Honourable Order of the Bath, for services rendered in connexion with the war. (June 3):—

C.B.

Maj.-Gen. L. J. Blenkinsop, D.S.O.

ORDER OF ST. MICHAEL AND ST. GEORGE.

K.C.M.G.

\* \* \* \* \*  
Col. and Hon. Maj.-Gen. (T. Brig.-Gen.) John Moore, C.B., C.M.G., F.R.C.V.S.

#### ORDER OF THE BRITISH EMPIRE.

The King has been pleased, on the occasion of His Majesty's birthday, to give orders for the following promotions in, and appointments to, the Most Excellent Order of the British Empire for valuable services rendered in connexion with military operations in France:—

C.B.E. (Military Division).

Cranford, R. L., Lt.-Col. (A/Col.) F.R.C.V.S. Hunt, F. W., Lt.-Col. and Bt.-Col. (T.Col.) C.M.G. Newsom, A. C., Col. C.M.G. Pallin, W. A., Maj. (T.Col.) D.S.O. Perry, E. M., Maj. (T.Lt.-Col.) F.R.C.V.S., T.F. Rudd, T. W., Lt.-Col. (T.Col.) Tatam, W. J., Lt.-Col. (A/Col.) C.M.G. Wadley, E. J., Maj. and Bt. Lt.-Col. (A/Lt.-Col.) D.S.O.

O.B.E. (Military Division).

Anderson, R. G., Maj. T.F. Anderson, T. A. I., T.Capt. Bowhay, A. B., Capt. (A/Maj.) Campbell, D., T.Capt. Clay, F. S., T.Capt. Coombs, F. M., T.Capt. Craig, T., Capt. T.F. Edwards, J. A., T.Capt. Fisher, O. S., Maj. (A/Lt.-Col.) Foster, A. N., Capt. (T.Maj.) T.F. Franklin, E., Maj. T.F. Gamble, H., Maj. (A/Lt.-Col.) T.F. Harper, R. T., T.Maj. Hearne, E., Capt. (A/Maj.) Hibbard, T., Maj. T.D., T.F. Jones, J. L. C., Capt. (T.Maj.) T.F. Jones, J. H., Capt. T.F. Keppel, J. J. G., Capt. S.R. Knott, G. P., Maj. (A/Lt.-Col.) Lord, H. H., Capt. T.F. Machonachie, T.Capt. C.O., M.C. MacDonald, D., Maj. McDougall, W. A., Maj. (T.Lt.-Col.) D.S.O., (R. of O.) MacKenzie, A. Capt. T.F. Marriott, S. W., Capt. (A/Maj.) Metivier, H. V. M., T.Capt. Miller, J. C., T.Capt. O'Kelly, J. W., Capt. (A/Maj.) Plunkett, J. F., Capt. Rees-Mogg, G. B. C., Capt. (T.Maj.) att'd. 1st Life Guards. Rockett, H. C., T.Capt. Wright, J. H., Capt. (A/Maj.) T.F. Yates, J. H., T.Capt. Dubault, J. R. J., Capt. C.A.V.C. Preston, M. J., Capt. C.A.V.C. Tambllyn, D. S., T.Lt.-Col. D.S.O., C.A.V.C. Torvill, W. F., Capt. C.A.V.C. James, E. S., Maj. A.A.V.C. Macindoe, R. H. F., Maj. A.A.V.C. Edgar, P. M., Maj. N.Z.V.C. Reid, H. A., Maj. (T.Lt.-Col.) N.Z.V.C.

*For Services in Italy.*

Carroll, P. A., T.Capt. Hilliard, J. J., Capt. (A Maj.)

*For Services in E. Africa.*

Hornby, H. E., Capt. S.A.V.C.

*For Services in Mesopotamia.*

C.B.E. (Military Division).

Wood, W. A., Maj. and Bt. Lt.-Col. (T.Col.)

O.B.E. (Military Division).

Lawrence, C. J. R., Capt. Nicholl, E. Mc M., Capt. (T.Maj.) Reynolds, E. B., T.Capt. (T.Maj.)

M.B.E.

Sutton, T. J., T.Qrtmr. and Lt.

*Home Services.*

C.B.E. (Military Division).

Martin, E. E., Lt.-Col. (T.Col.) C.M.G., F.R.C.V.S. Sturdy, R. J., T.Maj. (A/Col.) D.S.O.

## O.B.E. (Military Division).

Fowler, G. C. O., Maj. and Bt. Lt.-Col. Gregg, J.,  
T.Hon. Capt. Heatley, T. G., T.Capt. (A/Maj.) Logan,  
W., Maj. Schofield, W. E., Maj. (T.Lt.-Col.)

## M.B.E. (Military Division).

Barber, G. H., T.Capt. Bowhill, T. T.Capt. F.R.C.V.S.  
Morgan, P. S., Capt. (A/Maj.) T.F. Parker, T. M., T.Capt.  
Scott, E. E., T.Hon. Lt. Young, C., T.Hon. Lt.

*For Services in the Balkans.*

## O.B.E. (Military Division).

Hopkin, F., Capt. (A/Maj.) T.F. MacQueen, L. H.,  
T.Capt. Penhale, R. H., Capt. Peatt, E. S. W., Capt.  
Thrall, P. R. A. Capt. (A/Maj.) T.F.

*For Services in Egypt.*

## O.B.E. (Military Division).

Fail, F., Maj. (T.Lt.-Col.) Gordon, A. de R., T.Capt.  
(A/Lt.-Col.) D.S.O. McIntyre, P., Capt. (T.Maj.) T.F.  
Mason, F. E., Maj. E.V.D., Rabagliati, D. S., T.Capt.  
Williams, H.B., Capt. S.R.

## WAR OFFICE, June 3

The King has been pleased, on the occasion of his  
Majesty's Birthday, to approve of the following rewards  
for distinguished service in connexion with Military  
Operations in France and Flanders (June 3):—

## TO BE BREVET LT.-COLONEL.

Maj. (A/Lt.-Col.) J. A. B. McGowan. Maj. (A/Lt.-  
Col.) C. E. Steel.

## TO BE BREVET MAJOR.

Capt. (A/Maj.) T. Bagshaw. T.F. Capt. (T.Maj.) A. A.  
Pryer, D.S.O. Capt. (T.Maj.) W. N. Rowston.

## THE MILITARY CROSS.

T.Capt. W. Adamson, att'd. 4th D.A.C., R.F.A.  
T.Capt. T. Gordon. Capt. E. J. Laine, 1/1 W. Lances.  
Mob. Vet. Sec., T.F.

*Home Services.*

## TO BE BREVET MAJOR.

T.Capt. W. Denington. Capt. A. G. Saunders, T.F.

*For Services in the Balkans.*

## TO BE MAJOR.

T.Qrtmr. & Capt. C. M. Taylor.

*For Services in Egypt.*

## TO BE BREVET LT.-COLONEL.

Maj. (T.Lt.-Col.) E. P. Argyle, D.S.O.

## TO BE BREVET MAJOR.

Capt. (T.Maj.) M. P. Walsh.

The following Despatch has been received by the  
Secretary of State for War:—

General Headquarters,  
British Salonika Force,  
Constantinople.  
9th March, 1919.

Sir,—I have the honour to submit herewith a list of  
names of the Officers whom I desire to bring to your  
notice for their distinguished and gallant services during  
the period from 1st October, 1918, to the 1st March,  
1919.

I have the honour to be, Sir,

Your obedient Servant,

G. F. MILNE, Lieut.-General,  
Commanding-in-Chief, British Salonika Force.

\* \* \* \* \*

Glass, T.Capt. (A/Maj.) J. N. (Staff). Brear, T.Capt.  
N. Hopkin, Capt. (A/Maj.) F. T.F. MacQueen, T.Capt.  
L. H. Mullany, Capt. J. (T.F.) Northcott, T.Capt. C. S.

Peatt, Capt. E. S. W. Penhale, Capt. R. H. (T.F.)  
Taylor, Qrtmr. and T.Capt. C. M. Thrall, Capt. (A/Maj.)  
P. R. A., (T.F.)

The following despatch has been received by the  
Secretary of State for War:—

General Headquarters, Italy 18th January, 1919.

Sir,—I have the honour to submit a list of names of  
those Officers, Ladies, Non-commissioned Officers and  
Men serving, or who have served, under my Command  
during the period 15th September, 1918, to 31st Decem-  
ber, 1918, whose distinguished and gallant services and  
devotion to duty I consider deserving of reward.

I have the honour to be, Sir,

Your obedient Servant,

CAVAN,

General, Commander-in-Chief, The British  
Forces in Italy.

\* \* \* \* \*

Hilliard, Capt. (A/Maj.) J. J. (Staff).

**Cruelty Charge at Coalville—Dismissed.**

Daniel Sitdown (53), fruiterer, Coalville, was sum-  
moned for cruelty to a horse at Coalville, on April 29th,  
and also for illegally working a horse sent for slaughter,  
on May 1st.

Mr. J. F. Jesson (Ashby) appeared for defendant, who  
pleaded not guilty in both cases.

P.C. Robertson said he saw two boys working the  
horse with a chain harrow in defendant's field. It was  
lame in both fore legs, and in poor condition. It seemed  
very distressed and the boys used a stick to urge it on.  
Witness saw defendant, and he said he knew the horse  
was working. He said he had the horse a few days ago  
from Mr. Josiah Kemp, who told him it could work a bit  
on the land, though he (defendant) intended to kill it.  
The horse appeared to be a very aged animal—25 years  
at least.

By Mr. Jesson: His evidence related to April 29th.  
He did not see it working on May 1st. He had no  
veterinary knowledge, but had worked among horses in  
the Royal Artillery, and knew that the horse must have  
been in pain.

Albert Smith, R.S.P.C.A. Inspector, of Leicester, said  
the animal was very old, and in a worn-out condition.  
It was lame in both fore feet, which were deformed, and  
was totally unfit for work. He saw defendant, who said  
he did not think it would hurt the horse to do a bit of  
work on the land. Witness told him he had seen Mr.  
Kemp, who said he sold the horse to him for slaughter.

Answering the clerk, witness said he did not see the  
horse working on May 1st. It was the 29th of April  
when the horse was worked, and witness visited the  
premises on May 1st, and the animal had not then been  
slaughtered.

The clerk said the summons stated the horse was  
worked on May 1st.

Witness asked for the summons to be amended to  
April 29th in respect of the second charge. The Bench,  
however, dismissed the second charge.

In reply to Mr. Jesson, the inspector said an animal  
in that condition could not be worked without pain.

Josiah Kemp, grocer, Coalville said he sold the ani-  
mal, an aged gelding, to the defendant, as he did not  
wish to work it any longer on the road. The horse was  
about 24 years old.

By Mr. Jesson: He told Sitdown he did not think it  
would hurt the horse to do a little harrowing, but if he  
(defendant) worked it, it would be at his own risk.

Defendant said the horse was only working for about  
one hour and half with a small harrow. He did not  
notice it was lame, and was not aware it was in pain.

Wm. E. Little, veterinary surgeon, locum tenens for Mr. H. E. Powell, Coalville, said he was called by Mr. Sitdown to see the horse the day it was worked. The animal, though having deformed feet was not in pain, and galloped round the field while witness was there. The Bench dismissed the case, and on the application of the Inspector, they remitted the Society's costs—*Coalville Times*.

#### Adulterated Foodstuffs.

The following notes are from the half-yearly report of Dr. J. F. Tocher, Analyst to the Highland and Agricultural Society, recently submitted to the directors.

"A sample which was labelled 'meat meal' was analysed and was found to be really a sample of fish guano, wholly unsuitable for feeding purposes on account of the high proportion of oil present, and also on account of its 'high' character. The proportion of oil present was 13 per cent., while the albuminoids amounted to 38 per cent. The member wished to know whether the article was suitable for feeding poultry and pigs. It was reported to be wholly unsuitable for this purpose, but of value as a fertiliser, containing as it did 6 per cent of nitrogen and 7 per cent. of phosphates.

A sample labelled 'flour sweepings' was quite evidently flour which had been rejected for human use on account of its lumpy condition and the proportion of moisture it contained. It was otherwise quite sound with an excess of only 5 per cent. of moisture over the amount generally present in flour for bread making. Compared with the market price of home flour it was found the flour sweepings cost £2 16s per ton more than the flour used for baking purposes. This shows the effect of control in the price for human consumption and of the absence of control should the article be of agricultural value and just fail to reach the standard required for human use.

#### POISONS.

Several samples of internal organs of animals were sent in for examination for poisons. A very valuable sheep-dog was found to have been poisoned by crude carbolic acid.

A sample of cattle salts was found to consist of about 90 per cent. potassium nitrate and 10 per cent. sulphate magnesia. These salts were administered to a cow in the belief that the dose was Epsom salts, the cow died

after a very brief illness—evidently due to the excessive amount of nitre administered.

#### GRASS SICKNESS IN HORSES.

The stomach of a horse was sent in for examination by a member of the Society just beyond the Border. No trace of any vegetable or mineral poison was found in the stomach, the villous portion of which was found to be in a very inflamed condition. The post-mortem appearance generally corresponded closely to the appearance exhibited in post-mortem examinations of horses which had died of the disease now popularly known as 'grass sickness.' On enquiry it was ascertained that over twenty horses in the neighbourhood had died from similar causes. This scourge has for the past few years occurred during the months of May and June of each year in certain parts of Forfarshire and Perthshire. The Directors of the Society, recognising the seriousness of the outbreak and loss to farmers, arranged some time ago to conduct an investigation into the cause of this scourge. During this season two horses have already succumbed. The symptoms, environmental conditions, and post-mortem appearance of every case are being thoroughly investigated by a body of experts under the direction of the Society, with the objects of ascertaining the cause and of checking and, if possible, stamping out this disease."—*North British Agriculturist*.

#### Milk Producers and Ministry of Health.

At the meeting of the Council of the British Dairy Farmers' Association held at 28 Russell Square, London, W.C., on Wednesday, 4th June, Lord Bledisloe, K.B.E., President, in the Chair:—

A resolution moved by Lord Strachie and seconded by Sir Sydney J. Pocock, and with a slight amendment by Lord Bledisloe supported by Mr. James Sadler, was unanimously carried and ordered to be sent to Dr. Addison as follows:—

"That with a view to assisting the Minister of Health in securing for the Public a pure and sufficient supply of milk and other dairy products under the provisions of the Milk and Dairies (Consolidated) Act, 1915, the Minister be requested to appoint a Milk Producers' Consultative Committee to advise him in relation to such matters."

The next meeting of the Council was fixed to be held on Wednesday, July 2nd.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks	Slaughtered.*
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended June 7	6		3	3			1	1	95	190	1	70	39
Corresponding week in {	1918		3	4			1	2	100	156	1	31	14
	1917		8	8				1	49	84	2	54	29
	1916		11	21			2	2	33	77		122	295
Total for 23 weeks, 1919	104	3	91	122	19	154	13	39	3178	6259	213	789	325
Corresponding period in {	1918		135	152			16	44	2761	5274	236	564	191
	1917		280	316			13	24	1467	2975	375	1255	527
	1916		291	346	1	24	23	64	1402	3269	173	2278	7182

(a) Confirmed. (b) Reported by Local Authorities

Board of Agriculture and Fisheries, June 10, 1919

NOTE.—The figures for the Current Year are approximate only.

† Counties affected, animals attacked:—Gloucester 1  
Excluding outbreaks in army horses.

\* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

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FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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## POULTRY AND RABBIT PRACTICE.

One can hardly yet guess how much of the great popular increase in breeding and rearing of poultry and rabbits is likely to last. Much of it will probably continue for some years at least : and perhaps, like other economic changes arising in the recent years, it may become to a large degree permanent. Poultry and rabbits are among the native economic resources which had been long neglected and were forced into notice by war conditions. That compulsion has passed ; but it may have left a general recognition that such industries ought never to have been neglected and ought now to be maintained. If a considerable section of the nation learns that lesson we shall retain a minor line of veterinary work.

Until quite recently, most practitioners were seldom, if ever, asked to treat poultry and rabbits, but latterly it has become a much more frequent occurrence. Minor branches of our work though both these undoubtedly are, they are likely to be profitable side lines to many of us ; and we are certainly the proper men to take them up. No training affords so solid a ground from which to commence their further study as the veterinary. It must, however, be remembered that such detailed study is not merely advisable but absolutely essential for most of us, if we are to become experts in the diseases of these comparatively new patients.

Text-books and the school curricula do not help us very much with either patient ; as their instruction, though good as regards a few specially important diseases, goes little beyond those. Much remains with regard to both patients which can best be learned by practice and the intercommunication of clinicians. The task before us is not unlike the one when the profession generally first seriously took up the treatment of dogs and cats. Most practitioners in those days, knew far too little of the diseases of both animals, especially the latter ; but the deficiencies were soon made good. What we did with dogs and cats we can do again, as some already have done, with poultry and rabbits. If we study them, they are likely to remain a distinct addition to veterinary resources in many districts ; but they demand some study.

## POLITICS, PROPAGANDA, AND PROFESSIONAL ORGANISATION.

The interesting remarks of Mr. H. C. Wilkie are deserving of more than passing attention by the rank and file of the profession. It has always appeared to me that those gentlemen who so often bewail the lack of our social status rarely, if ever, contribute anything of a scientific nature for the advancement of the profession, or offer any suggestions of a progressive character which, if acted upon, would tend to lift us out of that slough of despond and state of social negation in which they affirm we have been engulfed from time immemorial. It is of no use to grumble over our supposed lack of social advantage and at the same time do nothing, or attempt nothing to alter the situation. I think we may safely allow "Watchman" to stew in his own literary juice, and neither begrudge him his shroud of anonymity, nor trouble about his mud baths.

To me the greatest need of the veterinary profession in this country to-day is scientific organisation. There is a great levelling force acting on all the professions at the present time ; and in the coming decades, mental equipment and scientific achievement will be the potent factors in advancement. In the State of the future men will not stop to enquire whether a man's father was a lawyer, a parson, or one of the old landed gentry ; they will be more eager to discover his ability or utility as a citizen.

We, as veterinary surgeons, have no central standing organisation to initiate or carry through any matter of importance, either in the field of original inquiry, in practical politics, or propaganda work. Take the case of "Naval Ill," the subject embraces some of the most important problems in hippo-pathology, and yet we leave it to some Scotch farmers to form a committee to investigate the disease.

A National Association having a whole-time secretary is one of the requirements of the day. The present National is a mere passive institution ; it possesses no drive, and plays a small part in national work. It gives no lead and has no voice. Far from this, it should be, so to speak, the organising brain of the profession, and the secretary, devoting his whole time to the work, would keep in touch with the different branches and thus carry through matters of national and local interest with the necessary weight.

It (the National) should also associate itself with the organisation of centres for clinical research, preferably in connection with the existing Colleges. Here practitioners could have reports on pathologi-

cal material supplied, bacteriological examinations carried out, autogenous vaccines prepared, and other work done such as agglutination tests, etc. Much pathological material at present running to waste would thus become available for teaching purposes. An association of this kind would naturally have its official journal, and other fields might be enumerated in which improvement or expansion might take place, but enough has been said to indicate the lines along which I think advance should be made. Much money would be required, and perhaps too few veterinary surgeons would lend support to render the suggestions practicable, but there should be a return for the outlay in increased efficiency and earning power of the individual practitioner, enlargement of professional outlook, a fuller recording of clinical experience, and less provincialism; while post-graduate teaching facilities would be greatly added to.

If the nineteenth century belonged to the town veterinary surgeons, the twentieth will belong more largely to those in the country, and it behoves the latter to organise themselves and do some share of scientific work in the future. Specialisation and again divisions in specialisations in scientific enquiry is the tendency manifest to-day. Diseases are investigated by bodies of men among whom there is team work, and collective enquiry. The biochemist, the bacteriologist, the morbid anatomist, and clinician must assist each other in working out the natural history of diseases, either in man or animals, for even many so-called simple maladies can no longer be investigated by individual workers, so complex are the problems presented in many instances.

Whether British Veterinary Science will see its way in the immediate future to develop and maintain some sort of central and powerful organisation to assist in its evolution remains to be seen. The outlook is not so dark as the pessimists would have us think. The horse dealing influence and the forge are passing away—not the least of the benefits conferred upon the profession by that great time saver the motor. To-day there is more leisure and more work done. The latter is better performed, and becomes more pleasant, and the animal owner is better satisfied. Recognising as never before the limitations of medicine so far as the giving of drugs is concerned, he is quick to appreciate the benefits of management and good advice.

Provincial veterinary medicine has been almost revolutionised in the last ten years, and its votaries will always be in a different position from those practising human medicine and surgery in similar areas. Patients of the latter may quickly obtain the assistance of specialists from afar, or be themselves transported to operating centres; while the veterinary surgeon practising in almost any district may find himself in charge of an animal worth hundreds or possibly thousands of pounds, and no specialists available to share his responsibilities. No longer do we find pedigree stock in a few centres only; small studs and herds containing stock of great value are springing up all over the country. The veterinary surgeon, therefore, more than the

medical man, will in future require as a part of his equipment a centre where any necessary pathological investigations may be carried out, and for this he should be prepared to pay to some extent, and not, as now, rely for help on the good nature of already over-worked professors.

A progressive spirit is necessary to meet the changing times, and more inter-communication between the members of the profession in different countries should be welcomed. An international fellowship in veterinary medicine may be in the future no idle dream, for has it not already materialised in the medical world?

F. T. HARVEY.

#### ABSTRACTS FROM FOREIGN JOURNALS.

##### POISONING BY MERCURIALIS PLANTS.

J. A. Hoffmann, in the *Berliner Tierärztliche Wochenschrift* of 1918, gave an account of *Mercurialis* poisoning. After summarising the existing knowledge of the subject, both as regards naturally occurring cases and experimental ones, he described eight cases which occurred about the end of 1917 and the beginning of 1918. These were in horses which had eaten hay containing great quantities of *Mercurialis annua*.

The symptoms consisted in grave depression of the sensorium, yellow or brownish-red tint of the conjunctiva, refusal of food and drink, suppression of the intestinal function, uneasiness, difficult elimination of a small amount of thick brownish-red urine, sensitiveness to pressure of the renal region, rigidity of the hind quarters, augmentation of the frequency of the respirations (up to 20 per minute), and of the pulse (up to 90 per minute), and augmentation of the temperature up to 103.1° F.

The therapy recommended is aloes (30 grammes) and arecoline (0.05 gramme), with Priessnitz packings to the abdomen and warm poultices to the renal region. If the heart is weak, the administration of digitalis is advised.

In five horses the symptoms were slight, and disappeared after three days; all these animals resumed their accustomed work after eight days more. Two other horses, in which the poisoning was grave, only recovered after two and three weeks respectively. The eighth horse died in twenty-four hours with symptoms of acute colic, and presented post-mortem lesions of pronounced gastro-enteritis, acute hæmorrhagic nephritis, and torsion of the colon.

*Mercurialis* preserves its toxicity even when it has dried. There are animals which show a strange individual predisposition to the toxic action of *Mercurialis*, and exhibit symptoms of intoxication after ingesting an insignificant quantity of it. Others are much more resistant to the poison.

According to Schulz, the toxic principal is *mercurialin*, which acts upon the muscles and upon the nerves of the intestine and the bladder, and also upon the heart. The red tint which the urine assumes in consequence of the ingestion of *Mer-*

*curialis* is due, in all probability, to an indigo-red pigment contained in the plant. In all cases of *Mercurialis* poisoning, the prognosis should be guarded.—(*La Clinica Veterinaria*).

(*Mercurialis annua* is found in England, though it is not so generally common in the country as dog's mercury [*M. perennis*])—*Transl.*

#### ANTHELMINTHICS IN THE HORSE,

Stall, Wilson, and Wigdor published an article upon this subject in last year's *Journal of the American Veterinary Association*. The intestinal *sclerostomes* or strongyles of the horse are difficult to expel; and the authors have experimented with various drugs, including sulphate of iron and tartar emetic, turpentine, and oil of chenopodium, for this purpose. They conclude that sulphate of iron and tartar emetic are inefficacious against intestinal strongyles, and that tartar emetic also often causes grave cases of enteritis. Turpentine (60 grammes, followed immediately by a litre of olive oil) is more active; and a single dose causes the expulsion of about 50% of the parasites. Oil of chenopodium in the dose of from 8 c. c. to 10 c. c. has little action; but double that dose is very efficacious, causing the expulsion of over 95% of the parasites. The authors therefore conclude that the oil of chenopodium is the best anthelmintic against equine intestinal strongyles, and that turpentine comes next to it.

To free the horse from ascarides is much more difficult. With turpentine, or with oil of chenopodium in doses of from 16 c. c. to 18 c. c., some success was only obtained in a very limited proportion of cases. Against oxyurides, better results were obtained with turpentine (60 grammes followed by olive oil) and with oil of chenopodium.

W. R. C.

#### MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION [NATIONAL V.M.A.—NORTHERN BRANCH.]

The quarterly meeting was held at the Grand Hotel, Birmingham, on Tuesday, May 13th, Mr. J. Malcolm, President, occupied the chair. There were also present: Messrs. W. H. Brooke, Handsworth; R. H. Over, Rugby; L. C. Tipper, Birmingham; T. H. Hobson, Leicester; J. Martin, Wellington; J. W. Conchie, Kidderminster; J. Young, Birmingham; J. O. Powley, Sutton Coldfield; Brennan De Vine, Birmingham; J. R. O. Jones, Gloucester; H. W. Stevens, Kidderminster; L. W. Heelis, Solihull; S. M. Woodward, Birmingham; H. A. Turner, Derby; J. L. Cormack, Coventry, and the Hon. Sec. Mr. H. J. Dawes, West Bromwich.

Apologies for unavoidable absence were announced from Professor Dewar, Messrs. J. R. Carless, J. M. Whyte, W. W. Grasby, F. L. Gooch, P. C. Woolston, C. J. Clifford, S. J. Marriott, J. J. Burchnell, R. L. Phillips, T. J. Brain, C. F. Parsons, C. E. Dayus, T. Spencer, A. Over, W. Trigger, R. C. Trigger, and others.

The minutes of the previous meeting were read and confirmed and the rules of the Association were also read by the Hon. Sec.

Among the correspondence was a letter from the Secretary of the Anglo-Franco-Belgian Veterinary Relief

Fund, acknowledging "with sincere gratitude" a donation of £10 voted at the previous meeting, and also letters from Mr. J. Blakeway and Mr. Carless, thanking the Association for their resolution of condolence.

#### THE MINISTRY OF HEALTH BILL.

The Hon. Sec. recalled the fact that at the previous meeting a committee was appointed to urge upon the Parliamentary Committee of the Royal College of Veterinary Surgeons the necessity of watching the progress of the Ministry of Health Bill with a view to safeguarding the interests of the profession. He had since received the following letter from Mr. Fred Bullock, Secretary of the Royal College, dated March 21st:—

"I brought your letter with the accompanying resolution of the Midland Counties Veterinary Medical Association before a special meeting of the Parliamentary Committee held yesterday. The Bill was also circulated to the members of the Committee and was very carefully considered. Mr. Malcolm's letter to Sir John M'Fadyean in which he describes more in detail the desires of your Association, was also considered. The Committee instruct me to state that as the present Bill does not enact any new legislation with regard to the matters raised in Mr. Malcolm's letter, but merely brings together under one department the functions that are being performed under existing Acts of Parliament, no opportunity is given for raising such questions on the present Bill. The Bill, however, is being carefully watched, and a resolution was passed urging that a veterinary surgeon should be included on the Consultative Committee to be set up by Clause 9. An amendment to this effect will be proposed when this Clause is reached."

The PRESIDENT said he understood that there had been several meetings of the Parliamentary Committee of the Council watching the position. Mr. Bullock's letter shed rather a new light on the matter and he had no reason to doubt that their interests were not being neglected. If any new legislation was brought up, the Parliamentary Committee might be trusted to take the necessary action.

Mr. TIPPER said the Bill had been before the Chambers of Agriculture in the country, but unfortunately, owing to pressure of other business it did not receive much consideration. There was a general want of knowledge on the subject, and he thought if any similar Bill came forward in future it would be wise to consult agricultural associations, as their interests often coincided with those of the veterinary profession.

#### QUACK MEDICINES AT SHOWS.

The Hon. SEC. brought forward a letter he had received from the Derbyshire Veterinary Association, who had passed the following resolution:—

"That veterinary surgeons refuse to act in a professional capacity at Live Stock Shows where vendors of animal medicines and surgical appliances are allowed to have stands for the purpose of exhibiting or offering such articles for sale, and also that veterinary surgeons attending officially at Live Stock Shows shall receive a fee."

Mr. OVER questioned whether they could take up a position of that kind. Veterinary medicines sold in that way probably did the profession no good, but the trade was within the law.

The PRESIDENT thought very few members of the profession would refuse to act at shows on that account. At all the shows he had visited during the last forty years there had been stands for the sale or exhibition of veterinary medicines, and he did not think they would get it altered by taking up the position that was suggested by the Derbyshire Association. Personally,

he did not see his way to support the suggestion.

Eventually, on the motion of Mr. Over, seconded by Mr. Martin, it was resolved unanimously that no action be taken in the matter.

#### ROYAL SANITARY INSTITUTE.

The HON. SEC. read a letter from the Royal Sanitary Institute inviting the Association to send representatives to their annual conference to be held at Newcastle-on-Tyne at the end of July.

The PRESIDENT thought they ought to send delegates, as was done before the war. He had a personal reason for saying that, as he had been asked to preside over the veterinary section and he had consented to do so. He would like to be fortified by the presence of some members of the Association. Sir Stewart Stockman had promised to give a demonstration on rabies, which was a live subject, whilst a second subject would deal with different phases of the work of the veterinary inspector. He was going, apart from the Association, so that two others could be chosen as special delegates. He would be present in a dual capacity, as president of this Association and on behalf of the Birmingham Corporation.

It was ultimately resolved to send three delegates to the conference, the President, the Hon. Sec., and the Hon. Treasurer (Mr. W. H. Brooke), the two last-named to have their expenses paid by the Association.

#### INSURANCE FEES.

The question of fees paid by the various insurance companies for the examination of horses for insurance, the discussion of which was adjourned at the last meeting, was again raised. The Hon. Sec. said he had received a letter from Mr. T. H. L. Duckworth, of Ashbourne, regretting that he could not attend that day, but mentioning that he had now no trouble in obtaining a fee of half-a-guinea for examining animals on behalf of insurance companies.

Mr. BROOKE said he was recently offered 6/- by a company to make an examination and he told them his fee was 10/6. He got it. There was no need for them to work for the low fees they had received in the past. The work generally involved something that was almost equal to an examination as to soundness, and it was worth half-a-guinea.

The HON. SEC. said the different live stock insurance companies belonged to an association.

Several members gave their experiences. Mr. Young remarked that he had no difficulty in getting half-a-guinea now. He refused to do the work for less, and if they held out they would get what they wanted. If the companies refused to pay a proper fee they must take the risk of insuring an animal without a veterinary surgeon's examination.

The HON. SEC. said it would be a good thing for representatives of various veterinary associations to interview the companies. He was afraid that an association which took the matter up single-handed would fail.

Mr. OVER thought 10/6 for the examination of a horse under £50 in value seemed rather high. He would like to see a sliding scale, with, say 7/6 as a minimum.

Mr. DEVINE suggested that they should get into touch with the National Veterinary Association. This seemed to him to be a subject well within their province.

Mr. TIPPER, Mr. HOBSON and others shared this opinion, and eventually, on the motion of the Hon. Sec., seconded by Mr. DeVine, the Hon. Sec. was instructed to communicate with the National Veterinary Association with a view to this matter being considered at their next meeting.

*Price of Petrol.* The HON. SEC. said that at the previous meeting it was reported that some veterinary surgeons were able to obtain petrol at traders' rates, although they did not say how they managed it. The

Derbyshire Veterinary Association had written to the oil company asking whether the same privilege could be extended to the whole of the profession. The reply was in the negative.

*Subject for next meeting.* The HON. SEC. reported that the Council recommended that at the next quarterly meeting, to be held at Birmingham, Prof. O'Connor, of the Royal Veterinary College, Dublin, be asked to give an address with a practical demonstration.

This was agreed to.

#### BOARDED-OUT ARMY HORSES.

Mr. YOUNG mentioned the question of fees allowed by the Government for attending army horses that had been let out. He was formerly allowed 1d. per day per horse, with an allowance for mileage, but he was now asked to do the work for 20/- per horse per annum within a 15 miles radius and 30/- beyond, with no mileage allowance. He had written refusing to do it.

The HON. SEC. said that apart from the inadequacy of the terms, he thought the principle was altogether wrong. The Government was asking veterinary surgeons to attend horses that were in the stables of men who were probably clients of another veterinary surgeon, and that was very objectionable.

Mr. TIPPER said the point raised by Mr. Dawes was a very important one; and Mr. DeVine and other speakers expressed similar views.

Mr. OVER said the same difficulty arose in regard to the appointment of veterinary inspectors.

Eventually, on the motion of Mr. De Vine, seconded by the Hon. Sec., a resolution was unanimously carried, to the effect that the Hon. Sec. should write to the Director General of Army Veterinary Service pointing out the difficulties that are likely to arise through one veterinary surgeon trespassing on the practice of another, and at the same time complaining of the inadequacy of the fees that are paid.

#### PERIODIC OPHTHALMIA.

By BRENNAN DEVINE, M.C., F.R.C.V.S., D.V.S.M., (Vict.)

When I was invited by our President, Mr. Malcolm, a fortnight ago, to contribute a paper on Periodic Ophthalmia for discussion at this meeting, I hesitated a good deal, as I knew I could not give much time to the writing of a paper, and further, I unfortunately have not now in my possession various notes which I made from time to time upon the great number of cases I was able to observe whilst serving in France. However, I trust my remarks will be of some interest to you all, and I hope to hear a good discussion on the subject.

I will endeavour to describe the disease as far as I can from a practical point of view. The opinions which I give are formed principally as the result of my own experience during the past two or three years. To my knowledge periodic ophthalmia has been prevalent among horses in the British Army in France since the summer of 1917. As many army horses are now being repatriated to England, I consider this disease one of the most important for us to study, for I think it feasible to expect that some affected animals may be brought to this country from France.

We know from the history of the disease that it was prevalent among horses in England about the middle of the last century. If outbreaks occur now in this country it will be necessary for all of us to be able to readily recognise the disease, so that we may take energetic steps for its immediate suppression and ultimate eradication. As I have suggested that we may possibly have an outbreak of periodic ophthalmia in England, I hope this will not be taken as an expression of disparagement of the Veterinary examination of horses before leaving France. I know it is difficult to diagnose the disease except in its active stages, and from its intermittent

nature it is not always possible even during a long period of quarantine to definitely say if an animal is free—especially in the interval following the first attack.

Until comparatively recently periodic ophthalmia was believed by most observers to be due to the irritation of the eye caused by dust or other foreign bodies carried by the wind. As far as my experience goes, periodic ophthalmia is as prevalent in winter as in summer. It may effect any breed of horse, but is comparatively rare in mules.

During the first eighteen months or two years of the war, when the great majority of the animals with the Expeditionary force in France were British horses, periodic ophthalmia was rarely seen. During the early half of 1917, following the German retreat on the Somme, the British Army occupied a large tract of country which had previously been occupied by the German army. About the same time we had a lot of foreign imported horses sent out from England. A few months afterwards I found many cases of periodic ophthalmia among the horses in units under my Veterinary charge. I do not know if the disease was introduced by the new horses we received, or if it was contracted from premises previously occupied by German horses. I merely mention these as possible sources of infection. So far as I know the channel of infection and method of spread has not yet been definitely ascertained. All attempts to inoculate animals with the discharges from infected eyes by depositing on the surface of the eye or injecting subcutaneously in the neighbourhood of the eye of a healthy animal have so far failed. Possibly infection takes place by inhalation or ingestion, more likely the latter. If this is the case it is not difficult to understand animals contracting the disease from infective material in certain specific areas, e.g. the war stained insanitary area of the Somme district, patches of which have been overcrowded with horses for several years.

Thanks to the original work carried out by Capt. Thos. Dalling, R.A.V.C., of No. 2 Vety. Hospital, Havre, we now know the definite causal organism of periodic ophthalmia, which has been found in the optic nerve. This is described by Dalling as a coccobacillus and named the "Nerve Bacillus," 1.2 microns long by .5-1 micron wide. By intra-venous injection of old culture in broth of the bacillus, guinea pigs and horses have been experimentally infected. Further details of the bacillus are given in an article by Capt. Dalling in the *Veterinary Journal* for Jan., 1919.

#### SYMPTOMS.

The disease may manifest itself in a variety of forms. The attack in every case comes on very suddenly, often seen first thing in the morning, although the horse looked perfectly normal the day before. It may affect one or both eyes; in later attacks it usually affects both. One eye may escape even four or five attacks, but finally it is involved. The local symptoms vary in different animals. In some corneitis is developed whilst in others iritis is the predominant symptom.

At the beginning of an attack the eyelids are inflamed and very painful. When corneitis is present the animal is very frightened to have the eyelids touched. The first thing one notices is the closed eye, lachrymation; on opening the lids, which it is necessary to do very gently, one finds the cornea is blurred and the conjunctiva inflamed. The aqueous humour has a grayish sediment in it. Later there is a grayish infiltration of the cornea, generally starting at the periphery end, spreading towards the centre. There is general constitutional disturbance for the first three or four days of the attack. During this period the temperature will rise to 103° or 104°F. or even in some cases to 105° or 106°F. About the fourth or fifth day of an attack the temperature subsides. The attack usually lasts ten days to three weeks.

At the end of the attack inflammatory symptoms disappear, the cornea clears up and in most cases the eye becomes apparently normal, but occasionally one finds cases in which there persists a very slight milky-white cloudiness in the cornea.

In the other form iritis is the outstanding symptom. The upper eyelid is swollen, but not quite so badly inflamed as in the keratitis form. The eye is kept closed. At first there is slight turbidity of the aqueous humour: the pupil is contracted, there is immobility of the iris, and synechia. The aqueous humour becomes opaque and yellowish green in colour. As in the other form, there are febrile symptoms and general constitutional disturbance. There is at first defective vision, and about the third day of the attack there is temporary blindness which persists for the duration of the attack, usually lasting about two to four weeks. At the end of the attack the aqueous humour clears up, and the pupil becomes less contracted save in those cases where you have synechia. In either the Corneitis or Iritis form, the later the attack, the greater the amount of inflammation present and the longer the duration, until with the fifth or sixth attack, or even the eighth attack, permanent blindness is developed. In this case the blindness is due to degeneration in the optic nerve and retina, whereas the temporary period of blindness in the previous attack is due to the opacity in the cornea or aqueous humour.

When permanent blindness has taken place, there is no further symptom of pain; there is often Glaucoma, and if pressure is applied to the eye it does not retract. When corneitis is the prominent symptom ulceration of the cornea may take place, and blindness supervenes even in a primary attack. Ordinary ophthalmia is not nearly so persistent, and in such cases you do not find such great constitutional disturbance as in the periodic form. The attack does not last so long, and it is not apt to recur. In true specific ophthalmia I consider the prognosis unfavourable in every case. In my opinion in all cases of periodic ophthalmia the final result is blindness, and this takes place usually in the 6th, 7th or 8th attack. In the 1st or 2nd attack the local symptoms in the eye disappear in two or three weeks, and the animal is apparently cured. The thickening and inflammation of the eyelids subsides, but there is left a peculiar wrinkling of the upper eyelid. The interval between attacks when active symptoms occur, varies from two to six months. Owing to the intermittent character of the disease diagnosis is sometimes difficult, but each attack leaves behind certain signs which persist. The most common is the peculiar wrinkling of the upper eyelid. The head of a horse that has had an attack is frequently carried at that angle assumed by one eyed horses.

When corneitis has been present there often remains a haze or bluish white cloudiness at the edge of the cornea; this is more evident after every succeeding attack. In the earlier attacks usually only one eye is affected, and comparison of the eyes is a great help in determining if the animal has had an attack. The eye which is affected is retracted more than the healthy one and for this reason appears smaller. In those cases where iritis has been present one finds on examination of the eye a yellowish or greenish yellowish light is reflected from below the lens. Opaque lines or spots may be detected on the capsule of the lens or in the aqueous or vitreous humour. After the second or third attack the pupil is usually contracted, this is due to adhesion of the posterior part of the iris to the capsule of the lens.

#### TREATMENT.

In spite of the unfavourable prognosis which I should give, treatment is desirable in every attack. First from a humanitarian point of view, as this is a painful

affection for the horse, and by appropriate treatment may be rendered less painful; and further the temporary blindness which place during the earlier attacks can be more readily cleared up. At present there is nothing that I know that will prevent the final result of blindness in an animal that has become infected with the disease. Further research is necessary, and when this has been carried out by our bacteriologists, I am in hopes that we shall be provided with preventative, diagnostic and curative agents. In the meantime, if we hope to keep the disease in check, it is advisable to adopt isolation and segregation.

In all cases of Periodic Ophthalmia the eye tends to clear up without any special treatment; in primary and secondary attacks this resolution may be hastened by the use of local dressings. Most of the Veterinary Officers with the Army in France whom I have asked about their treatment for Periodic Ophthalmia appeared to have a special treatment of their own. Among the more common applications used may be mentioned Calomel powder: Tr. iodine: Lugol's sol: Biniod of Hg: Belladonna ung: Atropine: Zinc chlor.: Zinc sulph.

I may say that I have seen all these drugs tried on cases. The calomel was used in the form of powder. I do not consider any drug applied in the form of powder a good thing for the treatment of affections of the eyes in horses. The blowing of the powder into the eye frightens the animal, which at the time is unusually sensitive about the eyes. This tends to make the horses so treated difficult to handle about the head. Again, if too great a quantity of such common eye remedies as calomel or acetate of lead are used, it may have a harmful effect on the eye.

In those cases of Iritis contracted pupil the use of mydriatics such as Belladonna and its alkaloid, atropine, undoubtedly have a beneficial effect. In addition to the local anæsthetic effect it dilates the pupil and tends to reduce the chances of posterior synechia. Iodine or 4% Biniod. Hg. ung. applied to the upper eyelid reduces the oedema and stimulates the surrounding lymphatics, and thus promotes a quicker clearing of the opacity in the eye in the earlier attacks of the disease. The injection of Lugol's Sol. with a hypodermic syringe into the depth of supra-orbital cavity has a similar effect. In practice the latter method is preferable to applying a counter irritant ointment to the eyebrow. Boracic acid sol. is useful in the early stages for fomenting the eye 3-4 times daily. It has an analgesic and antiseptic effect. Solutions of Zn Cl, Zn S O<sub>4</sub> or AgNO<sub>3</sub> are useful in treating the Keratitis form after the first inflammatory symptoms of an attack have somewhat subsided. In general treatment I would recommend fomentations 4-6 times a day with warm Boracic acid solution, protect the eye from strong light by means of wire cage covered with dark cloth. The custom of covering the eye by means of a piece of canvas or other cloth suspended from the brow band of the bridle or head collar should be condemned; it causes irritation of the inflamed parts already sensitive and painful, it is liable soon to become soiled and is not hygienic.

When the very acute inflammation of the eyelids has been reduced and the eye is affected with the Keratitis form, I would apply a 1% Sol. of AgNO<sub>3</sub>. If the symptoms are principally in the iris and lens I would inject 5 c.c. of Lugol's Sol. into the supra-orbital cavity every second day. This treatment reduces the period of an attack when active symptoms are present.

The general febrile symptoms would be treated in the ordinary way by giving mashes and febrifuges.

Finally there is the attack, which may be the 4th, 5th or 6th, when permanent blindness is the result; when this stage is reached further treatment is useless. There is then found on p.m. degeneration of the optic nerve

and atrophy of the retina. Cataract is a frequent sequel to the iritis forms.

Vaccines made from the Nerve Bacillus have been tried as a method of treatment. I am in hopes that this will prove valuable in the early stages of the disease. In the later stages, where there is structural alterations in the optic nerve, it is hardly conceivable that any method of treatment will be of any use.

#### DISCUSSION.

The PRESIDENT remarked that Mr. De Vine had only been home from the army a short time but had readily agreed to give his experiences on a disease they had perhaps not yet heard the last of. He took this opportunity of welcoming back other members of the forces, and probably they would be able to contribute usefully to the discussion.

Mr. OVER said the paper was so very complete that it was difficult to carry it any further at the present stage. He met with a great number of cases in France, and as for treatment, first one thing and then another was tried but none of them did much good. The trouble returned later on. Warm fomentation with boracic was as good as anything, and at least it afforded the animal most relief.

Mr. HEELIS agreed that the essayist had left little that was fresh to be said. It was his (the speaker's) experience that there was a predisposition to periodic ophthalmia with horses that had previously had any febrile trouble, such as influenza. He could not share Mr. De Vine's opinion that mules were comparatively free from the disease, because he had seen as many cases amongst mules as amongst horses.

Mr. STEVENS said the disease presented many peculiarities, breaking out in the most unexpected places and sometimes not breaking out when it was expected. It did not appear to him to be very contagious among the animals themselves; the cases were generally isolated, standing apart from each other. He could not remember any two animals standing side by side having it. He referred to a unit in France that had the disease very badly. A heavy battery which had suffered from it moved to fresh ground and another battery, apparently free from the disease, came in. The new battery had not been long in these lines before there was an outbreak of periodic ophthalmia, and in the meantime the old battery had no fresh cases on its new ground. The only suggestion he could offer was that the ground was badly affected. It must have been the ground, as they were in open lines.

Mr. POWLEY said he had no experience of the trouble, but he would like to ask whether there was any advantage in damping the food. He had seen it suggested that it was a good thing as a preventive measure. What was the result of the agglutination test in regard to the causal organism?

Mr. DE VINE: The whole thing is in its infancy yet, so that I cannot go into it to that extent.

Mr. MARTIN remarked that although he had not seen any cases, he quite expected he would do so as army horses became spread over the country.

Mr. BROOKE thought most of them must have seen periodic ophthalmia at some time or other, but they may have doubted as to whether it was specific. When he had met with such a case he had isolated it, although he never thought there was anything contagious about it. The case had generally run the course indicated by Mr. De Vine. There was effusion into the anterior chamber and adhesion of the iris to the front of the lens. He begged to differ in his opinion with regard to the value of calomel as a treatment. He had tried it in eye cases, not so much with horses as with dogs, and as a stimulant for ulcer of the cornea he thought there was nothing finer than calomel.



The PRESIDENT said he could have wished that the discussion had been more general—that more had taken part in it, but he quite realised the difficulty. This was a disease they knew very little about. With regard to the benefits of isolation, several men with whom he had spoken shared the opinion of Mr. Stevens, that the fresh case was not generally next to the animal already affected but some distance away. That seemed to suggest that the ordinary risk of contagion was not present, but that there was predisposition on the part of some animals to take the disease. Another point was the localities in which the affection was found, and he could not help inquiring whether they got cases in Italy as well as on the Somme. Was it the soil or the climate, or what was it that gave rise to the disease?

Mr. Powley added that Mr. Malcolm's last remark suggested the further question as to whether the disease was common to animals in the stable or to animals that were confined to the land.

Mr. OVER said most of the cases he saw were in horses that came from abroad and before the war he had met with it in polo ponies that were imported from the Argentine. He could scarcely recall a single instance in which an English animal was affected.

The HON. SEC., invited to take part in the discussion, said his lack of knowledge prevented him, as he had not come across this disease. However, he would like to thank Mr. De Vine for his most interesting essay. The benefit of the experience of men who had served in France would stand the profession in good stead in the future. He had one or two cases of eye trouble in horses when he had not been able to ascertain exactly what it had been. After ordinary treatment the trouble disappeared, and there had been no recurrence.

Mr. De VINE replying to the discussion, thanked the various speakers for the compliments they had paid him. Although he had read a paper, he hoped they would not think he was posing as an expert. He was really a great deal in the dark about this disease, and it was only recently that he got any information at all about the pathology of it. The bacillus which had been discovered by Dalling seemed to make a choice of settling on the optic nerve; at least, that was where Dalling had found it in most cases. Although only one eye might be affected at the time, the usual result was permanent blindness, and undoubtedly the bacillus spread along the nerve from one eye to the other. Extirpation of the eye might, of course, be attempted, to prevent the trouble spreading to the eye that was sound. The nerve bacillus had been found just immediately in the optic nerve behind the eye. Dr. Dor, who was alleged to have found the bacillus in the vitreous humour, maintained that it required an acid media to live in, and that when an alkaline media formed the trouble cleared up. Dr. Dor was the only authority he had come across who mentioned anything of that kind. A great number of authorities had attempted to discover organisms in discharges from the eye, but nothing specific. Mr. Heelis said he found the trouble as common in mules as in horses. He could quite believe that, because Mr. Heelis was with the cavalry; they generally had British horses which, as they all knew, were the best riding horses in the world and therefore the cavalry got a less percentage of horses of foreign breed than other units. Personally, he saw very little ophthalmia in mules, although he certainly saw some. Most of the cases he saw were in horses imported from America. The cavalry moved about from place to place and were not on lines occupied by horses month after month, winter and summer, where the ground became more or less infected. He was at one with Mr. Stevens in the idea that the land might be, and the worst outbreak he came across was on the Somme, where horses had occupied the same ground months on end. He had seen several cases of isolated

ophthalmia in units; that was, where a case existed and the next one broke out 10 or 20 horses down the line, instead of next to it. He certainly believed the ground had something to do with it, but he could not say definitely. As to whether damping the food was a good thing, as one speaker had suggested, it was well to remember that dry food contained a lot of dust, which might be disturbed by the horse blowing on it and the eye become affected in that way. He did not think food could cause the trouble in any other way.

He had seen a good deal of ophthalmia due to gas. In such cases the lips were swollen and there was ulceration of the mucous membrane of the eyelid, a lot of the gassed animals died of suffocation due to the swelling in the passages caused by the gas. But those animals that lived suffered from no apparent permanent after effects. In treatment he noticed that Mr. Brooke pinned his faith to calomel. It might be a very good thing in certain conditions, but when one gave a thing in powder, one could not give a definite dose. Mr. Brooke was an authority in the treatment of dogs, and he accepted his statement that calomel had answered with them, but with a horse it was different. His experience was that if he blew something into a horse's eye he could not handle the head afterwards to put a bridle on. When they knew that a disease was due to any organism, whether introduced through the food or off the soil, he thought isolation was a good thing. Though the disease may not spread directly, isolation stopped it by means of a carrier. As to whether any cases had been found among horses in this country that had come back from France, he must answer in the affirmative. He had seen several such himself. He thought it was quite on the cards that they would have some ophthalmia to deal with before very long, especially where animals were crowded on the soil. He could not say whether horses were chiefly affected in stables or in the open. In France practically all the horses were in the open, or at least only under sheds.

A hearty vote of thanks was passed to Mr. De Vine for his paper, on the motion of the President, seconded by the Hon. Sec.

The members then adjourned for tea before separating.

H. J. DAWES, F.R.C.V.S., Hon. Sec

#### DUMFRIES AND GALLOWAY VETERINARY MEDICAL SOCIETY.

A meeting was held in the Crown Hotel, Castle Douglas, on June 2nd, of the veterinary surgeons in Dumfries and Galloway counties.

*Present*—Messrs Lindsay and Baird, Dumfries; Milligan and McKenzie, Annan; A. Edgar, Whitburn; Allan and Waddell, Castle Douglas; Nicholson and MacAlister, Kirkcubright.

Apologies were read from—Messrs MacConnell, Wigtown; McKinlay, Stranvaer; Pollock, Lockerbie; Dunlop and Lattler, Thornhill.

Mr. JAS. LINDSAY proposed that a Society be formed of the professional members in Galloway and Dumfries, the Society to be called the "Dumfries and Galloway Veterinary Medical Society."

Mr. MILLIGAN seconded, and the motion was unanimously agreed to.

Mr. EDGAR proposed that Mr. MacConnell, Wigtown, be elected the first President of the Society.

Mr. Edgar said that Mr. MacConnell was one of the best known and respected men in the profession, and he had no doubt that if Mr. MacConnell would accept, the success of the Society would be assured. Mr. MILLIGAN seconded.

Several of the members present hoped that Mr. MacConnell would accept.

Mr. MILLIGAN proposed Mr. Lindsay as Vice-President; seconded by Mr. Edgar. This was unanimously agreed to.

Mr. MACALISTER was elected Secretary and Treasurer. *Subscription.* On the motion of Mr. Baird, seconded by Mr. Edgar, the entrance fee was fixed at £1 1s., and yearly subscription at 10/6.

Mr. LINDSAY took the chair, and said that as the meeting was called to discuss and adopt a minimum scale of fees for the district, they would proceed to discuss same.

The fees adopted are similar to those fixed by the Glasgow Committee, with a few alterations:—

Mileage 1/6, instead of 1/3; Night visits 8 p.m. to 6 a.m. double fees. Parturition: minimum £1 1s.; Milk fever injection 5/-. Examination for Insurance Companies: rates fixed by the National V. M. Association.

The meeting terminated after a lengthy discussion.

NEIL H. MACALISTER,  
Hon. Sec.

#### THANKS TO ELECTORS.

Dear Sir.—As one of the two new members of the Council will you kindly permit me through the medium of your journal to thank those Fellows and Members of the Royal College of Veterinary Surgeons who so kindly voted in my favour.

Evidently the profession is in favour of a progressive policy, and it will be my constant endeavour to watch the interests of the members and merit their confidence.

Yours faithfully,  
G. P. MALE.

#### THE STATUS OF THE PROFESSION.

Dear Sir,—Permit me to offer an apology re some remarks of mine which appeared in *The Record* relative to this subject, where I questioned the courage of Public School-boys. It was really a case of my being unfortunate in expressing myself, as the courage of our Public School-boys as shown in the late war will remain a monument for all time.

What I should have said was, "In how many Public School-boys would be found the natural instinct to become successful Veterinary Surgeons." I offer no apology for this expression, for I am of opinion that the Veterinary Surgeon is a good deal like the poet, "born, not made."

"Watchman's" observations on our "low-grade profession" are in my opinion likely to do more harm than good, especially to our younger members. To the older members like myself it does not matter so much, as we are in a better position to take measurements.

From "Watchman's" style of writing, which is good, he would have shone as a journalist; and this reminds me that in no profession is the "square man in the round hole" deserving of greater sympathy than in the Veterinary.—I am yours, etc.,

The Gables, Reigate,  
Surrey, June 16. CHAS. A. SQUAIR.

#### UNDIAGNOSED—AN ENQUIRY.

To the Editor of the *Veterinary Record*.

Dear Sir,—I shall be very glad if any of your readers will help me with suggestions on the following case:—

The subject is a nine year old cart horse, and the symptoms are absolutely identical with stringhalt, except that the spasmodic flexion of the leg is shown

principally when the animal is standing in the stable, or when resting for a time while at work. The symptoms usually pass off entirely after the horse has walked 10 or 20 yards. He has been known to gallop freely about a field a few minutes after leaving the stable so badly affected that he almost fell over when first moved.

The symptoms have been coming on gradually for about two years, but are now so acute that the animal is rapidly losing condition, and will soon be useless if nothing is done.

I notice that Möller recommends dividing the peroneous tendon below the hock for stringhalt. Have any of your readers had any success with this operation? And would it be advisable in this case?

I shall be very grateful for any helpful suggestions.

Yours faithfully,

228 High Street, Berkhamsted. A. C. WILSON.

#### SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919:—

Adamson, D., Bolton	£1 1 0
Adamson, J., M.C., Capt. R.A.V.C.	1 1 0
Cattell, A. J., Brecon	1 1 0
Davenport, C., Capt. R.A.V.C.	1 1 0
Dobbing, W. Newton, Darlington	1 1 0
Fowle, Warwick, Birkenhead	1 1 0
Hoddinott, D. R. F., Evesham	1 1 0
Holland, J., Athy	1 1 0
Howard, C. W., Dorking	1 1 0
Jarvie, T. R., Gateshead-on-Tyne	1 1 0
Linton, R. G., Edinburgh	1 1 0
Powley, J. O., Birmingham	1 1 0
Senior, J. W., Wem.	2 2 0
Sherriff, W., Capt. R.A.V.C.	1 1 0
Taylor, C., Capt. R.A.V.C., 1918-19	2 2 0
Thomas, F. W. H., Major R.A.V.C.	1 1 0
Previously acknowledged	844 12 10

June 17. £863 10 10

#### ANGLO-FRANCO-BELGIAN VETERINARY RELIEF FUND 10 Red Lion Square, W.C. 1.

The following Donations are gratefully acknowledged:—

R. M. Bamford, Capt. R.A.V.C.	£1 1 0
W. B. Edwards, Lt.-Col. R.A.V.C.	5 5 0
J. S. Lloyd, Sheffield	1 1 0
H. A. MacCormack, London	1 1 0
A. Smith, Lt.-Col. I.C.V.D.	1 1 0
C. A. Squair, Reigate	1 1 0
Previously acknowledged	251 9 7

June 17. £261 19 7

#### OBITUARY.

ALFRED MARSTON, Sarmiento, Buenos Aires.

Graduated Edin: May, 1895.

Died 1st June.

EDWARD PERRY, Ibstock, Leics.

1865, Edin: Jan. 1890

Died 1st June, aged 83.

## ARMY VETERINARY SERVICE

Buckingham Palace, June 12.

The King held an investiture in the quadrangle of Buckingham Palace, at 11 o'clock.

The following were severally introduced into the presence of His Majesty, when the King invested them with the Insignia of the respective Divisions of the Orders into which they have been admitted:—

## THE DISTINGUISHED SERVICE ORDER.

\* \* \*  
Captain HARRY POWELL.

His Majesty then conferred decorations as follows:—

## THE MILITARY CROSS.

\* \* \*  
Captain JOSEPH LAURIE.

## MENTIONED IN DISPATCHES.

Appended is the completion of the dispatch received by the Secretary of State for War from General F. R. Earl of Cavan, K.P., K.C.B., M.V.O., Commander-in-Chief of the British Forces in Italy, dated January 18, 1919:—

\* \* \*  
Braid, T.Capt. P. Carroll, T.Capt. P. A., 35th Mob. Vet. Sec. Knowles, Capt. R. H. Little, T. Capt. E., 1st Vet. Hosp. Little, T.Capt. R. J., 22nd Vet. Hosp. Little, T.Capt. W. L., F.R.C.V.S.

The following dispatch has been received by the Secretary of State for War:—

Pretoria, January 20, 1919.

Sir,—I have the honour to forward herewith my recommendations in favour of the under-mentioned Officers, Ladies, Warrant Officers, Non-commissioned Officers and Men for valuable services rendered during the period 1st August, 1918, to the conclusion of hostilities.

I have the honour to be, Sir,  
Your obedient Servant,  
J. L. VAN DEVENTER,  
Lieutenant-General, Commander-in-Chief,  
East African Force.

\* \* \*  
JARVIS, Capt. E. M., M.C., S.A.V.C.; McNAB, Capt. A., S.A.V.C.

The Secretary of State for War has received the following dispatch:—

General Headquarters,  
Mesopotamian Expeditionary Force,  
7th February, 1919.

Sir,—With reference to paragraph 39 of my dispatch dated 1st Feb., 1919, I have the honour to submit herewith a list names of those officers serving, or who have served, under my command, whose distinguished and gallant services and devotion to duty I consider deserving of special mention.

I have the honour to be, Sir,  
Your obedient Servant,  
W. R. MARSHALL,  
Lieut.-General Commanding-in-Chief,  
Mesopotamian Expeditionary Force.

\* \* \*  
Williams, Lt.-Col. (T.Brig.-Gen.), G. M., C.M.G., (Staff).  
Bell, T.Capt. J. Chadwick, Capt. (A/Maj.) C. R. (T.F.).  
Dier, T.Capt. H.V. Lawrence, Capt. C. J. R. Nicholl,  
Capt. (A/Maj.) E. McK. Reynolds, T.Capt. (A/Maj.)  
E. C. Thomson, Capt. (A/Maj.) J. H. (T.F.) Thwaytes,  
Capt. (A/Maj.) R. C. G. Williams, Maj. (A/Lt.-Col.)  
A. J., D.S.O., F.R.C.V.S. Wood, Maj. and Bt. Lt.-Col.  
(A/Col.) W. A.

The names of the following have been brought to the notice of the Secretary of State for War by Maj.-Gen. W. F. IRONSIDE, C.M.G., D.S.O., Commanding-in-Chief Northern Russia Expeditionary Force, for valuable and distinguished services rendered in connexion with the operations at Archangel:—

\* \* \*  
Barnett, Capt. G., M.C., R.A.V.C.

The following despatch has been received by the Secretary of State for War:—

Headquarters,  
Egyptian Army and Sudan Government,  
Khartoum, 26th Jan., 1919.

Sir,—I have the honour to forward herewith the names of officers, officials and others whose work in connexion with military operations, and the situation in the Sudan created by the War, is deserving of special notice and commendation.

I have the honour to be, Sir,  
Your obedient servant,  
LEE STACK, Major-General,  
Acting Sirdar of the Egyptian Army and  
Acting Governor-General of the Sudan.

\* \* \*  
Soutar, Cap. J. J. M., R.A.V.C. Tapley, Maj. and Bt. Lt.-Col. J. J. B., D.S.O., R.A.V.C.

The following Despatch has been received by the Secretary of State for War:—

General Headquarters,  
5th March, 1919.

Sir,—I have the honour to forward herewith a list of officers, Nurses, other ranks and civilians, whom I consider worthy of mention for their services during the period from September 19, 1918, to January 31st, 1919.

I have the honour to be, Sir,  
Your obedient Servant,  
E. H. H. ALLENBY, General,  
Commander-in-Chief,  
Egyptian Expeditionary Force.

\* \* \*  
STAFF: Bartrum, Capt. (T.Maj.) V.A., O.B.E., R.A.V.C. (T.F.). Beatty, Maj. P. V., R.A.V.C. Butler, Col. (T.Brig.-Gen.) E. R. C., C.B., C.M.G., F.R.C.V.S., R.A.V.C. Fail, Maj. (A/Lt.-Col.) F. R.A.V.C. Lloyd, Capt. (T.Maj.) G., D.S.O., R.A.V.C. (S.R.). Nicholas, Maj. (T.Lt.-Col.) J., R.A.V.C. Grey, T.Capt. G. O. R. Hollis, T.Qrmmr. and Lt. W. Martin, T.Capt. T. D. M. Maynard, T.Capt. F. O. Morrow, T.Capt. J. J. Waters, T.Capt. W. Whitehead, T.Capt. G. Williams, Capt. H. B. (S.R.).  
Aitken, Capt. W. (T.F.). Cunningham, Capt. J. (T.F.). McIntyre, Capt. (T.Major) P. (T.F.). Palmer, Capt. (A/Major) R. B., M.C. (T.F.).  
Murray-Jones, Major F., A.A.V.C. Worthington, Major H., A.A.V.C.

Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, June 5.

## REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

The follg. temp. Capts. relinquish their comms. (June 6), and retain the rank of Capt. :—P. J. Sheil, on account of ill-health contracted on active service; A. A. Hayman, on acct. of ill-health caused by wounds.  
Capt. J. M. Richardson, T.F., to be actg. Maj. whilst holding the appt. of D.A.D.V.S. (Feb. 24).

June 6.

Temp. Capt. R. K. Porteous relinquishes his comm. on acct. of ill-health (June 7), and retains the rank of Capt.  
C.A.V.C.—Temp. Lt. O. V. Gunning to be temp. Capt. (April 29).

June 7.

Temp. Capt. N. Wright relinquishes his commn. on acct. of ill-health (Apr. 6), and retains the rank of Capt. Temp. Qrmr. and Lt. F. Benwell, D.C.M., R.A.V.C., to be Capt. under Art. 330, R. Wt. for Pay and Promotion (June 1).

June 12.

Temp. Capt. W. P. B. Beal relinquishes actg. rank of Maj. on ceasing to hold appt. of D.A.D.V.S. (Mar. 16), (substd. for notification in *Gazette* April 25).

The surname of Temp. Capt. D. S. Rabagliati is as now described, and not Rabagliati, as in *Gazette* Feb. 5.

Temp. Capt. P. MacLaughlin relinquishes his commn. on acct. of ill-health contracted on active service (June 13), and retains rank of Capt.

S. Afr. Vet. Corps—Temp. Capt. S. Elley resigns his commn. (Dec. 3, 1918), and retains the rank of Capt. (substituted for *Gazette* notification Feb. 17, 1917).

June 13.

Temp. Lt. S. Holmes to be temp. Capt. (May 9).

June 14.

Capt. P. J. Malone relinquishes the actg. rank of Maj. (April 16); Temp. Lt. F. W. Thompson to be temp. Capt. (April 22).

June 17.

Capt. H. C. Jagger, O.B.E., T.F., relinquishes the actg. rank of Lt.-Col. on ceasing to hold the appt. of A.D.V.S. (April 1). The following Capts. relinquish the acting rank of Maj.:—On ceasing to hold the appt. of A.D.V.S.:—R. H. C. Higgins (Dec. 2, 1918); E. McK. Nicholl (Dec. 7, 1918); R. C. G. Thwaytes (Dec. 20, 1918); H. Peele, T.F., on ceasing to hold the appt. of D.A.D.V.S. (March 23); F. Hopkin, T.F. (May 13).

Temp. Lts. to be temp. Capts.:—O. McGuirk (May 18); S. G. McKee, L. Senecal (May 22); W. S. Grogan (May 28).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

June 7.

Capt. (actg. Maj.) J. R. McCall relinquishes the actg. rank of Maj. on ceasing to be empld. (May 8).

June 11.

Capt. D. R. C. Tennant, F.R.C.V.S., to be Maj. (May 11).

RESERVE.

June 14.

Capt. J. M. Magill, from R.A.V.C., to be Capt. (June 15).

### The "law" of supply and demand.

The following is from the editorial page of the current copy of *The Meat Trades Journal*.

"We recently called attention to the indiscriminate slaughter of calves that was taking place under Control, and pointed out how serious it was for the future of the meat industry. With de-control the prices paid by retail traders have more than doubled, and this adds one more danger to our supply, for if breeders and feeders can realise 2s. per lb. for them, the temptation to sell is too big a test, and the last state of our herds will be even worse than we anticipated. It is idle to blame the farmer and talk about his greed, etc. It is the butchers' fault, for they make the price, to the entire satisfaction of the seller. Will we as a trade never learn?"

The following intimation appears in the daily press of June 20:—

"Calves, which ought to have been kept for rearing, have been sold in large quantities for slaughter. This has given grave concern to the Board of Agriculture, and the Food Controller, after very careful consideration, and with the concurrence of the Board of Agricul-

ture, has re-imposed maximum retail prices for veal. These prices will, until further notice, be the same as those in force up to May 31. The new Order, which does not apply to Ireland, will come into force on Monday.

### REGISTRATION TO CONTINUE.

As a result of the recent drought and its detrimental effect on the fattening of livestock, there is a danger of the amount of meat available for consumption being restricted, and the Food Ministry has accordingly decided that the registration of customers with retailers for butcher's meat, which it had been hoped to abolish on June 30th must continue."

At the sale of Lord Rayleigh's Friesian cattle, the bull "Levenham Janus," 2½ years, made 3600 guineas, and a cow, "Jeltie," six years old, 5300 guineas. Eighty animals realised 22090 guineas.

### Claim for value of a Horse.

#### Kicked, or struck by Lightning?

At the Carnarvonshire Assizes on Tuesday, Mr. Justice Avory and Jury heard an action brought by Evan Thomas, farmer, "Tan-y-dderwen," Llanddeiniol, against Grace Roberts, "Braich Kiffri," in the same parish, claiming £150, being the value of a horse alleged to have been killed by a ferocious stallion which had trespassed from the defendant's land on to the plaintiff's land.

Mr. Artemus Jones, K.C., and Mr. T. E. Morris (instructed by Mr. Richard Roberts) appeared for the plaintiff, and Sir Ellis Griffith, K.C., and Mr. Austin Jones (instructed by Mr. Thornton Jones) for the defendant.

The plaintiff, Evan Thomas, said he had been offered £150 for the horse. He was all right the night before. He had offered to settle with the defendant, but she refused, because Mr. Trevor Williams had told her that the gelding had died as the result of lightning going up its nostril and fracturing the skull.

Richard Thomas, son of the plaintiff, said he turned the horse into the field on the night of the 11th Sept., and it was alright when he saw it at 11.30 that night. Early the following morning he saw a stallion in the field, and some distance away was their horse lying dead.

Cross-examined: Witness said that he did not hear any thunder nor did he see any lightning the previous night after he turned the horse into the field.

Mr. L. W. Wynn Lloyd, M.R.C.V.S., Carnarvon, said when he examined the horse he saw thirteen marks on the horse's side, and they appeared to him to be bite marks and there were five or six marks on the other side. He made a post-mortem examination and found all the organs healthy. He then decided to defer the remainder of his examination until the following day, and get a knacker to skin the horse, and then examine the skull and spinal cord. When he got home he phoned to Mr. Trevor Williams to ask him to meet him the following day to complete the examination, as he wanted to do justice to both parties. The following day Mr. Trevor Williams, instead of meeting him at the plaintiff's farm, went to defendant's farm. After waiting a while he went to defendant's place and found Mr. Williams examining the stallion. On the way to plaintiff's farm Mr. Williams said "No doubt this horse was killed by lightning." They both proceeded with the post-mortem. The head was skinned. There was a fracture of the skull, and Mr. Trevor Williams agreed that that was the cause of death. It was a depressed fracture, and there was a good deal of congestion of the parts immediately under it. There would be

less likelihood of hæmorrhage because death was instantaneous.

Cross-examined by Sir Ellis Griffith : After seeing the dead horse he telephoned to Mr. Trevor Williams at Llangefni, as he could not make out the cause of death at the time. He (Mr. Lloyd) ultimately came to the conclusion that the horse died from shock following concussion. He was of opinion that the blow could not have been inflicted after the horse's death. The marks on the horse were bites.

Mr. R. Jones, M.R.C.V.S., Towyn, Merioneth, said he saw the dead horse on September 15th, 1918. He found teeth marks on the skin. He was of opinion that death was due to shock caused by fracture.

Cross-examined, witness admitted that the blow might have been inflicted either by a horse or through human agency. There were thirteen marks on one side of the horse and six on the other. In his opinion lightning was an impossible cause of death. If the horse had been struck by lightning decomposition would have set in at once. He never saw a case of this kind before.

Mr. David Evans, M.R.C.V.S., Llanrwst, corroborated the two last witnesses.

J. Morris Williams, a neighbouring farmer, said he valued the dead horse at £150.

R. Jones said he lived near the plaintiff's and defendant's farms. He was also of opinion that the horse was worth about £150.

Dr. Taylor Jones, Professor of Physics at the Bangor University College, said lightning might cause fracture, but in that case it would leave a mark on the skin. If lightning had gone up one nostril and came out through the other, it would have left a mark.

#### THE DEFENCE.

Sir Ellis Griffith for the Defence, said that there was a violent thunder storm on the night the horse was killed. Mr. Wynn Lloyd went to the defendant's house but never said a word about the horse having been killed as the result of a kick. Mr. Lloyd made notes at the time but those notes could not now be found. They ought to have been in the possession of the solicitor for plaintiff. There was no mention of horse bites in those notes from beginning to end. Mr. Lloyd had a consultation with Mr. Trevor Williams. The latter suggested that the horse had been killed by lightning.

Miss Grace Roberts, the Defendant, said the Plaintiff came to her about the dead horse. He said her stallion had killed his horse, and he was not going to stand the loss. There was a heavy thunder storm the previous night and she suggested that Mr. Wynn Lloyd should examine the dead horse to ascertain the cause of death. When Mr. Lloyd saw it, he said that fever or illness was not the cause of death, and that it might perhaps take a month to ascertain the cause.

Cross-examined: Witness said that if Mr. Lloyd said her stallion killed defendant's horse, she would cover the loss.

John Jones, Bailiff at the defendant's farm, said there was a heavy thunder storm on the night the horse was killed.

C. J. Rawles, Electrician in the employ of the L. & N. W. Ry. Co., said he was called to duty at Pontrythall Station on the night in question on account of the thunder storm having caused the wires to fuse.

Griffith Jones "Wern Fawr" Llanddeiniol said he saw no teeth marks on the dead horse.

Cross-examined: Witness admitted there had been complaints concerning the viciousness of the stallion. His mare had been bitten by him once.

William Parry who was at the time a farm servant in the employ of defendant, said he came in late on the

evening the horse was killed. It was raining hard at the time, and on account of the storm he had to dismount from his bicycle.

Mr. Trevor Williams, M.R.C.V.S., Llangefni, said Mr. Wynn Lloyd consulted him as to the death of the plaintiff's horse. He suggested to Mr. Lloyd that it might have been a flash of lightning that killed the horse. He was the first to notice the depression on the dead animal's forehead. The skin had been removed by then. He saw no trace of nasal hæmorrhage. It was that same day (at the Assize) he first heard of horse bites. He saw three cattle which had been killed by lightning some time ago at Llanfechell. There were no marks at all on two of them. The latter might have been in the open fields at the time. There was a thunder storm on the night in question.

By the Judge: He was of opinion that the stallion could not have kicked the horse on the forehead unless someone held it down.

The Judge: You are not to answer my question in that flippant manner. I asked a scientific question to a scientific man.

Witness (continuing) was of opinion that a fracture by a direct blow was impossible only through the agency of lightning. The dead horse had an enlarged heart.

The case was adjourned until Wednesday.

On Wednesday morning Mr. Trevor Williams said that it was lightning in his opinion that had killed the horse.

Mr. Hugh Williams, M.R.C.V.S., Ty Croes, said he saw the dead horse. It had been skinned by then. It had an enlarged heart. He saw no signs of a horse having crossed the ditch from one field to another. He agreed that death might have been caused by lightning. If it had received a blow on its head there would have been hæmorrhage. The fracture might have been caused after death.

By His Lordship: The parts immediately under the fracture contain no blood vessels but are very vascular.

Mr. John Matthews, M.R.C.V.S., Anglesey, thought it was very improbable that the horse had been kicked on the head.

By His Lordship: Shock caused the concussion and fractured the skull.

Do animals suffer from shock? I cannot answer your Lordship.

Mr. R. M. Malloch, M.R.C.V.S. (Retired) of Kirkby Stephen, said he had made a special study of animals that had been killed by lightning. He had written a book on the subject but it could not be printed now owing to shortage of paper. He had seen a great number of animals which had been killed by lightning. Many had marks on them and others were without marks. He believed the horse in question was killed by lightning. He did not agree that immediate decomposition followed death by lightning.

Mr. W. Griffith Williams, Architect, Bangor, said he visited the fields in question and produced a plan which he had made of the spot where it was alleged the stallion had crossed from one field to another. The wire-netting had been clean cut by an instrument.

The Plaintiff, recalled, said it was quite untrue that the wire had been cut by him or by his instructions.

After Sir Ellis Griffith and Mr. Artemus Jones had addressed the Jury, the Judge summed up, and said that a good deal had been said as to how the stallion got into plaintiff's field. It matters nothing how he got there if in fact he was there, which fact was not disputed. If then he was there, he was trespassing. The Jury had heard the evidence of Mr. Wynn Lloyd, which was consistent and straightforward, and though he was subjected to very severe cross-examination by Sir Ellis Griffith,

he never wavered. A good deal had been made of the fact that Mr. Wynn Lloyd had not designated the marks on the skin "bite marks" in his original notes. This, as a matter of fact, shewed to him (His Lordship) that he was impartial. Mr. O. T. Williams, on the other hand, repeatedly contradicted himself on material points. He first said that the fracture of the skull had nothing to do with the death of the horse. Then he said that the fracture was caused in a miraculous way by lightning, and further, he suggested that it was done after the death of the animal. He again maintained that the stallion could not strike a direct blow with his fore foot on the horse's forehead which is perpendicular. A good deal was made of this point by the learned Counsel for the Defence. What in fact is the position of the horse's head when the animal is at liberty? It is never perpendicular except when held in that position by a bearing-rein. The position at liberty assumes a forward slope from the forehead towards the nose. In this position it can be readily understood that a direct blow could be inflicted by the stallion's fore foot. To deny this shewed to him that Mr. Williams was ignorant of the rudiments of dynamics. Mr. Williams swore that the stallion was not capable of rearing in order to strike the horse, but it was proved that he had done his duty as a sire that season. Mr. Trevor Williams said that the gelding had an enlarged heart but this was not corroborated by the other witnesses. Science may carry one too far. Let me give you an illustration. A man is found dead with a bullet wound through the head. The assassin is found standing by with a revolver in his hand. Half-a-dozen doctors are called to prove that the dead man had a diseased heart and that the very sight of a

pistol pointed at him would be sufficient to cause him to fall down dead. Could any Jury be found foolish enough to say that the assailant was not guilty of murder? The expert evidence for the Defence was speculative. It was claimed that the horse must have been struck by lightning though the witnesses for the Defence admitted in cross-examination that the usual signs were absent, except that the carcass had decomposed four days after death. This statement even was emphatically denied by expert witnesses for the plaintiff. Mr. Williams admitted there were a few marks on both sides of the dead horse. He thought they were caused by the horse falling dead in the field. Now the horse could not have fallen on both sides.

The Jury, after consultation, returned a verdict for the plaintiff for the full amount of £150 and costs.

His Lordship gave judgement for this amount with costs.

#### Charge of cruelty at Greenwich: "Cast" Army Horse.

During the hearing of a charge at Greenwich Police Court on Tuesday, 17th inst. of working a horse in an unfit state, Mr. M. G. Byerley, F.R.C.V.S., said the animal was branded with a "C," which indicated that it was an Army "cast" horse, and so was useless.

Mr. Hay Halkett (the magistrate):—Then why does the Government sell it and so encourage cruelty?

Mr. Byerley said the public were misled into supposing that these horses were useful, and it was a practice which was both cruel and cowardly. The Remount Department was responsible.—*The Times*.

#### DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaught-tered.
	Dogs	Other AnmIs											
Gr. BRITAIN.													
Week ended June 14	5						1	1	100	217		61	20
Corresponding week in {	1918		3	3			2	7	87	171	4	46	22
	1917		5	5					38	66	3	58	25
	1916		10	11			1	1	29	86		121	358
Total for 24 weeks, 1919	109	3	91	121	19	154	14	40	3278	6476	213	850	345
Corresponding period in {	1918		138	155			18	51	2848	5445	240	610	213
	1917		285	321			13	24	1505	3041	378	1313	552
	1916		301	357	1	24	24	65	1431	3355	173	2399	7540

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, June 17, 1919

† Counties affected, animals attacked:—London 1  
Excluding outbreaks in army horses.

IRELAND. Week ended June 7		...	...	...	...	...	...	Outbreaks	...	...	...
		...	...	...	...	...	...	5	...	...	...
Corresponding Week in	1918	...	...	...	...	...	...	1	3	1	1
	1917	...	...	...	...	...	...	1	2	4	12
	1916	...	...	...	...	...	...	2	1	8	43
Total for 23 weeks, 1919		...	...	...	...	...	...	79	150	19	59
Corresponding period in	1918	...	1	1	...	...	1	69	167	8	28
	1917	...	3	5	...	...	1	24	214	130	881
	1916	...	2	6	...	...	...	31	214	139	731

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, June 9, 1919

NOTE.—The figures for the Current Year are approximate only.

\* As Diseased or Exposed to Infection



# THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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## PROFESSIONAL ORGANISATION.

The present position and needs of the profession have been discussed briskly for some months past; and some accord has been reached on at least two points. It is generally agreed that veterinary surgeons are too "apathetic," and there is a further recognition of a need for professional organisation and combination. The former is an old and just complaint; and if it could be remedied, organisation and combination would be a simple matter. A few men have already provided us with excellent machinery for organisation and combination; the problem to-day is to induce our members to make use of it.

We have an internal political constitution which, from its arrangements empowering us to manage our own affairs by a Council of our own election annually susceptible to our influence, may fairly be called an ideal scheme of self-government. Doubtless it has often worked unsatisfactorily; but, when it has done so, the fault has been in the men working it, not in the system. It has always been difficult to focus the attention of the electorate upon a test question sufficiently closely to get a straight vote on it; and many a practitioner to-day is so far from appreciating his right of annually voting for a quarter of the Council that he is attracted by the idea of limiting his vote to one or two members to represent his own district. The only thing to be said against our political constitution is that so far it has been too good for us. The profession as a whole has never learned how to use it.

A more recently created but equally admirable machine for dealing with practically all professional matters not governed by the Council is the "National" with its affiliated local branches. In its present form it became available so shortly before the war that we have not yet had the chance of making real use of it. The chance is coming now, but are we likely to take it? One essential to the effective use of the "National" is that its local branches should be well manned by members, and that those members generally should take an active interest in both local branch and central body. At present, many members are outside all professional associations, and many of those who do join one take only very slight interest in it. The profession must break with one of the worst of its old traditions before the "National" can become the power for good it might be.

Speaking broadly, veterinary surgeons have not yet learned to think collectively. Machinery for collective deliberation and action as good as that possessed by any profession lies ready to their hands, and most of them never think of using it. The present need seems to be for an educative propaganda within the profession.

## NOTES ON

### A GERMAN VETERINARY HOSPITAL.

I met recently a farmer's son who is an N. D. A. of the Harris Institute, Preston, who had been a prisoner of war in Germany for twelve months, and this account was given to me by him.

When he first joined the army he was in the R.A.V.C. but being a class "A" man was transferred to the infantry, and whilst with them he was taken prisoner.

Amongst his occupations whilst in their hands he was attached to a German Veterinary Hospital at Tournai, Belgium. This hospital was in the Cavalry Barracks of that town, and although he was somewhat restricted in his movements about the place, he reckoned that it had accommodation for about 600 animals. The major part of the work was done by Belgian civilians: very few Germans were employed, except the staff—the guards and the N.C.Os.

The English prisoners varied from 15 to 50, and were mostly employed in the Remounts Transport stables. The stable routine was as follows:—First feed, 6 to 7 a.m. and comprised both corn and hay. The stables were provided with hay racks but these were not used, as the hay was thrown on the floor. 8 a.m. water, afterwards grooming. 11 a.m. corn feed. 2 p.m. water and then exercise. 5 p.m. corn, hay, water; and that concluded the day's routine.

The three corn feeds consisted of a mixture of tailed wheat, rye, and crushed maize 2lb. Dried vegetables (chiefly swedes)  $\frac{1}{2}$ lb. made up with chaff, which was mostly straw soaked in molasses? The dried vegetables, unless previously soaked in water, (two handfuls to a bucketful of water) had a tendency to cause colic, the treatment of which consisted of a drink and then a run round the yard.

A compressed food which was brought to the hospital in half-cwt. paper bags, was also used; it appeared to be oats and rye—probably the screenings from the flour mills. The hay varied greatly in quality; sometimes it was very good and at other times very bad. The bedding was peat-moss litter and there appeared to be no restrictions as to the quantity used.

This particular soldier often assisted in the operating theatre in the casting of the animals, and said the building was a large one and very well equipped. There was a Dollar's operating table with a padded side, but most of the cases were cast with hobbles. There was not much chloroform used—mostly cocaine; but when used it was poured on to a pad of *papier-maché*—this being their substitute for cotton wool—and this was placed in the bottom of an iron stable bucket. The latter was then slipped over the horse's mouth and nostrils, including both jaws, then a blanket covered the horse's head.

There were three veterinary officers at this hospital, but most of the operating was done by a young surgeon. For fistulous withers his favourite treatment was setoning. An operation at which this soldier assisted was that of nymphomania in a mare. A stallion and this mare were both cast at the same time and a freshly extracted testicle from the stallion was sewn into a wound made in the mare's neck. This was left there for about ten days and then removed. The wound in the neck took about a month to heal; and the soldier informs me that the mare was afterwards discharged cured.

In June and July, 1918, many castrations of Belgian stallions took place. The instrument used was the emasculator. They were all cast, but no chloroform was used, and one morning he assisted in the throwing of 14 animals.

For laminitis he saw tried a shoe one inch thick which covered all the foot except the frog, but he says it had no effect on the animals.

Belgian civilians did most of the wound dressing, and the standard dressing used was known as "goat" and which had the colour of an indelible pencil.

In dressing wounds very little water was used. There were very few mules in that hospital and those they had were captured from us.

Skin cases were washed in a weak solution of disinfectant somewhat resembling our coal-tar preparations.

The operation for nymphomania appears to be quite unique as I cannot find any such thing suggested in the English and American text books on surgery. I fail too see how it can have any desired effect on the mare. Also the wound in the neck took a month to heal, which is a consideration when mares can be fit to work in a week after the ordinary operation of "spaying."

G. C. LANCASTER, F.R.C.V.S.

Burnley, Lancs.

#### LINCOLNSHIRE AND DISTRICT VETERINARY MEDICAL SOCIETY. [NATIONAL V.M.A.—SOUTHERN BRANCH.]

The Annual Meeting was held at the Angel Hotel, Peterborough, on Thursday, June 12th. The President, Mr. C. W. Townsend, F.R.C.V.S., Long Stanton, in the chair; there were also present Mr. H. H. Truman, March, Vice-President; Messrs. T. B. Bindloss, Long Sutton; F. L. Gooch, Stamford; R. W. Knowles, Wisbech; G. Lockwood, Peterborough; A. Lennox, Crowland; H. H. Nicholls, Oundle; J. H. Poles, Whittlesey; T. A. Rudkin, Grantham; E. Porter-Smith, Lincoln; with Mr. T. Hicks, Sleaford, Hon. Sec. and Treasurer.

The Secretary read several letters of apology. Mr. Trevor Spencer wrote that he could not attend but he hoped they would renew their kind invitation to the next meeting at Peterborough. Similar apologies were received from Mr. W. W. Grasby, Daventry and Mr. T. Holmes, Bourne, (Vice-Presidents), and Mr. T. J. Keall, Gainsborough.

#### DELEGATES TO CONGRESS OF SANITARY INSTITUTE.

An invitation was received to send delegates from the Society to the Congress of the Sanitary Institute at

Newcastle. The President and Secretary were nominated, and eventually it was agreed to leave the matter to the them as to which should attend.

Later in the meeting Mr. Gooch emphasised the importance of the Society being represented, and said he should be present in a private capacity. It was understood that in the event of the President and Secretary being unable to go, Mr. Gooch would be able to represent the Society, and that the expenses of the delegates would be paid by the Society.

*Subscriptions.* The SECRETARY suggested that it was not quite right to ask the members to pay their subscriptions for the two years of 1917-18, during which there had been no meetings. A few had already paid, however.

Mr. TRUMAN asked what was the state of the funds.

The SECRETARY said the Society was in a good position as regards its financial aspect. He had £43 in hand.

The CHAIRMAN said even from 1914 to 1916 the meetings, owing to the war, were poorly attended, and that during this period several members had been away on active service.

After some discussion Mr. Truman moved that the fees for the two years 1917-18 be not paid.

Mr. POLES seconded and the resolution was carried.

The PRESIDENT: We pay for 1916 and for 1919 but not for the years 1917-18!

Mr. GOOCH said in some societies no subscriptions were drawn from men during the time they had been serving in the army. Of course some are still serving and not yet returned.

The PRESIDENT: We have a total of 18 members who have served with the A.V.C. during the war.

It was agreed that as all would benefit by the resolution just passed, no further alteration be made.

*Sympathy.* The SECRETARY said he had received a letter from Mr. J. Mackinder of Peterboro' (who had severed his connection in practice) sending in his resignation.

Mr. GOOCH proposed that the Secretary ask Mr. Mackinder to reconsider it. Mr. Truman seconded and the meeting agreed.

Mr. LOCKWOOD said he did not know if the meeting were aware that Mr. Mackinder had recently had the misfortune to lose his wife. He suggested that a letter of sympathy be sent.

The members rose to signify their agreement with the proposal.

The PRESIDENT said unfortunately several members of the Society had died during the last few years. Owing to the Secretary being then away on active service, and no meetings held, the usual letters of sympathy had not been sent in all cases. He proposed that letters of sympathy be sent to the relatives of the following with an explanation as to why they had not been sent before:—Mrs. T. N. Clarke, Newmarket; Mrs. A. R. Routledge, Louth; Mrs. R. W. Clarke, Wragby; Mrs. B. A. Searby, Ramsey.

Mr. RUDKIN seconded, and the resolution was carried, the meeting standing.

*New Member.* Mr. A. S. Leese, of Stamford, was elected a member of the Society on the nomination of Mr. Gooch, seconded by the Secretary.

#### THE PRESIDENTIAL ADDRESS.

Gentlemen, This is the first meeting this Association has held since the conclusion of hostilities, and I can assure those members here to-day, that it is a great pleasure to me to once more have the opportunity of presiding, and being back with you again after a period of nearly five years.

This Association, like many more of the smaller Veterinary Association in this country, reluctantly decided, at the meeting held at Grantham, in February 1916, that

owing to military circumstances and to the fact that many of its members were serving in His Majesty's Forces, it was then practically useless to continue our meetings.

We must congratulate ourselves, for the long looked for peace is now in sight, I think I may say, sooner than some of us at one time anticipated, and this association is now able to resume its usual meetings, I trust with more vigour and keenness than before. The attendances of members in the past has been far from what it ought to be, our meetings are only held three times in the twelve months, I know it is frequently difficult to attend regularly when one is single-handed, as many of us are, but I feel sure that more members could attend if they tried. The district covered by the Association is situated in one of the best and most important agricultural parts of England; we seldom see one another except at our meetings, and surely one of the chief objects of our various associations is to enable veterinary surgeons to meet together, thereby promoting good feeling and fellowship, at the same time discussing our views on veterinary topics and matters pertaining to our own welfare and also those relating to the profession in general.

On looking through the last five years, many changes have occurred. We have all had our troubles to meet, many of us who have been abroad have passed through and experienced many anxious months during what may be described one of the biggest struggles in the world's history. Those of you who for various reasons were compelled to remain at home to "carry on" and look after the interests of stockowners and agriculturists have also undoubtedly had numerous difficulties and hardships to undergo, and many weary months of waiting and wondering when the war would end; gentlemen it has ended, and with the coming of peace, many changes and difficulties confront us. There is not the least doubt that this country is passing through a very serious crisis, and our profession like every other trade and calling will, I feel sure, have innumerable difficulties to face in the near future.

Personally I do not think we as a profession have much to fear. I, unlike many, am not pessimistic. I maintain that our abilities are gradually becoming recognised by the general public; our social status has made considerable improvement in the last few years, and I have every reason to think this will be maintained and upheld. At the same time I consider openings and opportunities present themselves now which will increase our work and recognition in many ways in the near future.

As regards the work done by the A.V.C. during the past war, in my opinion seldom before has our profession had such a splendid opportunity of actually demonstrating to the general public what we can do when given a free hand. In the army we had this opportunity. Our advice upon the health of animals was not only eagerly sought after, but always acted upon, and I consider that throughout the war our corps did most excellent work; it is no doubt owing to them that mortality and animal wastage was always kept so low. Never before have we had so many animals under our care. When one remembers that in peace time the total number of horses in the army was roughly 19,000, whereas at the conclusion of hostilities it approached something like 750,000 animals, and that losses from all causes was under 12%, it gives some idea of the way the horses were looked after, and at the same time does, I maintain, reflect great credit upon the A.V.C. Moreover, judging from the remarks of Maj.-Genl. Birkbeck, Director of Remounts, this branch also appreciated our work, for he states that the veterinary surgeons had established an unexampled veterinary service, and that our preventive hygiene was beyond all criticism; whilst in hospital

installation, aided by the R.S.P.C.A., our work was beyond all praise. Such remarks as these coming from an important Government official can scarcely escape the notice of the general public, who I vouchsafe will not be slow in realising the good work done by our profession during the war. It is also indeed most gratifying to see that His Majesty The King has honoured our profession by granting to the A.V.C. the prefix "Royal," in acknowledgement of good work done by the corps in various theatres of war.

Personally, I think the profession as a whole was most patriotic in joining the army, for we are told that out of a total of 3000 veterinary surgeons in the United Kingdom, over 1200 were employed in the A.V.C. either in a civilian or military capacity. Even our own little association provided 19 out of a total of 48 members. If, therefore, one realises the comparative small numbers of veterinary surgeons serving in the regular A.V.C. in peace time, and compares it with the numbers that assisted in carrying on the tremendous work during the war, one can then see how the civilian veterinary surgeon quickly came to the rescue; and there is not the least doubt that the excellent results obtained were due in no small measure to the valuable help given by many of the elder civilian veterinary surgeons, who willingly left their practices, and assisted in carrying on the work of the A.V.C. I hope that some members of this society who served in the various theatres of war, will at some future time come forward and give us papers on experiences gained, for on account of the large numbers of animals, one had to deal with diseases on a scale that one seldom meets with in private practice.

A disease I would like to see more fully investigated is specific ophthalmia, which, during the last three years of the war was the cause of much blindness, and on account of very little being definitely known until recently as to its cause and treatment, one could not do much in preventing its occurrence. Personally I consider this disease was the cause of greater financial loss than any other met with in France during the war.

Other important questions that confront us at the present time are the old ones of College funds, contagious diseases and research work, Ministry of Public Health Bill, Milk Bill, Present scale of fees, Work of the Council, Animal Anæsthetics Bill, all of which I think you will agree are matters of great importance, I propose to briefly refer to them all, and as we have no paper to be read at this meeting, I do not think we can better occupy our time here to-day than to ask those members present to give us their views and opinions upon some of the items I have just mentioned, all of which have been much discussed in the various veterinary periodicals during the last few months.

With regard to the question of college funds, we all know that our College has had to carry on its work in spite of great financial difficulties for many years past, owing to its main source of income being derived from students' fees. The number of students during the past ten years has gradually decreased until the College is now on the verge of bankruptcy. Surely this state of affairs cannot continue; help must come from somewhere, and the question arises as to where and by what means this help has to come. I maintain that we have been self-supporting long enough, and that it is now the duty of the State to come forward and give us their assistance. At the same time I feel sure that neither the State nor the general public sufficiently realise our true state of affairs, nor do they appreciate the importance and extent of our work. If this is so it behoves each one of us to demonstrate this in every possible way.

In the past the veterinary profession have done excellent work for the agriculturists of this country, in the eradication of contagious diseases, many of which are now non-existent here, owing entirely to our work.

There are several diseases—Contagious abortion, Joint-ill, swine fever, Influenza, Tuberculosis, Helminthiasis, and others I could mention—all of which are still the cause of great annual financial loss to this country, and which afford ample scope for further investigation. The whole question as to whether sufficient research work is being carried on in connection with control and eradication of contagious diseases at present existing in this country has lately been much discussed in our Veterinary Journals, and judging by present statistics I, personally, feel sure that given increased financial assistance—which would mean the employment of more officers, much better results would be obtained, and that the whole country would benefit thereby. Our work has been, and always will be, closely connected with the agricultural industry of this country and when we hear so much of what the Government is going to do for agriculture we can only hope that the important part the Veterinary profession has played in the past will not be lost sight of, and that ample funds will be allocated to us for carrying on work which we are only too willing to do if given sufficient means. It is, I consider, up to every one of us to bring to the notice of prominent agriculturists and public bodies, such as farmers' unions, agricultural committees, even our members of parliament, that the control of contagious disease in animals is due entirely to the work of our profession, and furthermore that, since many of the contagious diseases in animals are directly transmissible to man, it is of the utmost importance that we should be ably and fully represented in all matters connected with public health. I consider that in many instances this is not the case. Meat inspection, I maintain, should be done only by qualified veterinary surgeons; yet at the present time, except in some of the largest towns this is not the case, this subject is a matter that the profession might once again take up. Several years ago this matter was discussed but nothing definite came of it; surely our knowledge of the pathology of animals specially fit us for this work.

With regard to the Ministry of Public Health Bill we are told by the Council that they are fully alive to the importance of the Bill and that in the interests of our profession it is being carefully watched; it is therefore hoped that when this and other legislative measures at present before Parliament become law our profession will obtain proper recognition in all advisory and administrative matters to which our special training entitles us.

Just now there seems to be a lot of needless criticism and grievances with regard to our present Council and the work they have done. Personally, I think one must look upon this as a good sign, for it shows that the profession is taking an interest in matters pertaining to its welfare. The Council, like other public bodies has had to carry on amidst many difficulties; it has also been undoubtedly hampered by lack of funds: this difficulty will, we hope, be overcome when the new Annual Fee Bill comes into force and should be the means of enabling the Council to assist us in many matters which without necessary funds it is unable to do. One knows that the work involved by any public calling is frequently an unenviable task and associated with much comment, but, when one considers the amount of time the doings of the Council involves and the work they have done we have a great deal to be thankful for, and particularly is our present President to be thanked for his energy and splendid work and the great interest displayed at all times in furthering the progress of our profession.

Whether our present system in the selection of members of Council could be improved upon, if election on the Parliamentary plan by splitting up the profession into divisions were adopted, is a question: this might

possibly be a more popular method, but on the other hand the important point is; would it be the means of obtaining better men? Personally I doubt if this would be so. By the present system, each candidate appeals to the whole profession and has the satisfaction of knowing that if elected it is by votes coming from veterinary surgeons all over the Kingdom; this could not be said if district representation were adopted.

An important question that behoves us to carefully consider is the one of a scale of fees, but since this is on the agenda, I will only briefly remark upon it. I think it is impossible to establish a uniform scale of fees throughout the country, as to cover all the requirements of general practice, on account of condition varying so much in different districts. We all realise that a considerable increase in the ordinary fees must be made; and I think that even in general practice a more uniform scale of fees could be adopted. The only way of doing this, so far as I see, is for neighbouring practitioners in any district to confer together and agree mutually among themselves. As regards our fee for work in special branches—Insurance fees, Town Councils, County Councils, it would be much more satisfactory if uniformity could be adopted, it has already been done by many Societies, and it is now up to this Society to do likewise.

There are other matters connected with the future of our profession which one would like to comment upon—Petrol for veterinary surgeons at cost price, Animal Anæsthetics Bill, Compulsory Examination and Registration of Farriers' Bill, The question of whole or part time inspectors for contagious diseases; however, I feel I have taken up quite sufficient of your time to-day. I have endeavoured to give you as shortly as possible some opinion I hold as regards our future prospects. We, as a profession have made much progress, by our united efforts I feel sure this will continue; but I sincerely trust we shall obtain in the near future from the State the assistance we deserve, by which, not only the profession but the country as a whole would be benefitted.

It was decided to defer discussion of items referred to in the President's address, until next meeting, but one or two subjects were touched upon.

Mr. GOOCH said the President had referred to the fact that the A.V.C. had not been given credit by the public for the work they had done. There was a lot said in *The Times* recently about the Remount Department, but no reference to the Veterinary services.

Mr. PORTER-SMITH said the prices made by the horses sold out of the army showed how well they had been kept.

Mr. GOOCH said the question of the College funds came home to everyone. If it were not supported, there soon would not be a College. They ought to try and use their influence to get State help. They had help in Ireland, but not in England. Then in regard to meat and market inspection—how many markets were inspected?

The SECRETARY said that Sleaford market was not.

Mr. GOOCH said there was not one in Kesteven that was.

Mr. PORTER-SMITH: If Sleaford were inspected it would not be passed.

Mr. RUDKIN: I inspect Grantham market.

Mr. GOOCH said he only referred to County markets, not Boroughs. The Society of Meat Inspectors was holding a meeting at Newcastle, and that also should be supported. The work of inspection should be in the hands of veterinary surgeons. At the present time it was in the hands of doctors or laymen.

#### ELECTION OF OFFICERS.

The PRESIDENT asked for suggestions on the election of officers.

Mr. GOOCH said that they should ask the present officers to continue until the next Annual General Meeting (normally held in February).

Mr. RUDKIN said they were greatly obliged to their officers who had been serving, for what they had done for their country, and if they would continue to act for the Association they would be glad to have them. The suggestion was embodied in a resolution and carried.

The PRESIDENT thanked the meeting. He looked on it as a great honour that they should re-elect him. Those who had had the honour and pleasure of serving in the forces abroad had had anxious times, but when they came home on leave, they saw that those at home had difficulties and hardships to undergo. He had always done his best in the past to further the interests of the Association, it was always a pleasure to attend their meetings. He asked for the support of the members, and above all for better attendances in future.

The SECRETARY also thanked the meeting, though he had intended asking them to let him resign. He had been in office 16 years, and was getting older—(laughter)—at least older in business, and busier, but he would struggle on for another year.

#### A SCALE OF FEES.

The remaining item on the agenda was as to the arranging of a scale of fees for veterinary inspection and other duties, and the members gave some of their experiences with regard to the matter.

Mr. GOOCH said it was important that there should be unity. The Derbyshire Society had drawn up a scale of fees and were getting them. What was more, the system was killing the quack. The members of the profession simply refused to go to clients unless their scale-fees were paid.

The SECRETARY said he had neighbours who were quacks, and were accepted by insurance companies.

Mr. LOCKWOOD: Do they know whom they are dealing with?

Mr. GOOCH said one insurance society was doing business without any examination. At least they accepted a mare, and she was not examined until after she had foaled.

The mileage to be charged for visiting was also touched upon, and also fees for attending foaling, the amount charged in different parts of the district being found to vary considerably.

Mr. GOOCH said the only way would be to draw up a scale and discuss it, and get members to sign it.

Mr. RUDKIN: Why not adopt the Derby scale?

The PRESIDENT: He had not got the Derbyshire scale with him now, but he would suggest this should be brought forward at the next meeting. The whole question resolved itself into whether, since their society covered a very large district, it were possible to adopt a uniform scale of fees, circumstances altered cases considerably as he had said in his paper, but he thought they might adopt a minimum fee in nearly all cases.

Mr. GOOCH: I work for three different County Councils, and they are all different. He added that he had been working on the system of charging 25% above his pre-war scale.

Mr. TRUMAN said their fees were too low. He thought that they should take 50% above. Their Association covered a very large area, and circumstances were not all the same. In some parts people were more able to pay than in others, and a rigid scale was difficult to arrive at.

Mr. PORTER-SMITH said the scale would be the minimum; if they could get more, all the better.

The PRESIDENT said there must be some poorer people they could not make the same charges to.

Mr. TRUMAN said he did not want to put his name to a document unless he was going to keep it. In many instances poor people could not pay at all, and he

frequently attended cases where he knew he would never be paid so he never charged these people anything; whereas if he charged them half the minimum fee he would be up against the document.

It was resolved that a scale of fees, based on the Derbyshire scale, should be drawn up and submitted to the next meeting for discussion.

A vote of thanks to the President, on the motion of Mr. Truman, seconded by Mr. Rudkin, closed the business, and the meeting adjourned for tea.

#### ANNUAL ADMINISTRATION REPORT OF THE CIVIL VETERINARY DEPARTMENT, BOMBAY PRESIDENCY, FOR THE YEAR 1917-18. [abridged].

Lieut.-Colonel G. K. Walker held charge of the department throughout the year. He was on tour for 121 days and travelled 11404 miles by rail, 1003 by road and 40 miles by sea. He visited 13 districts, inspected 24 dispensaries and 6 stallion stands once, or more, and interviewed district officers and others in regard to the work of the department. He also investigated several outbreaks of contagious diseases.

Mr. J. D. Buxy held the post of the Deputy Superintendent and Personal Assistant to the Superintendent throughout the year. He was 108 days on tour and travelled 7255 miles by rail, 1787 miles by road and 150 miles by sea. He visited 16 districts and inspected 42 dispensaries and 12 stallion stands and attended several outbreaks of equine and bovine contagious diseases in the course of his tours.

During the year contagious disease was reported from all the districts and from the City of Bombay. In all 21137 deaths were recorded against 25801 last year. This is the first time for a number of years in which a decrease in mortality has to be noted. It is due to the fact that rinderpest and black-quarter were not so widely prevalent. The Gujarat districts were practically free from both these diseases throughout the year.

Since the Veterinary Assistants have been required to submit reports on the outbreaks attended by them as a routine it has been the custom to remind the revenue officials regarding the submission of statistical information where it had not been received. During the year 681 calls for such returns had to be issued from this office, which means that in practically all these outbreaks the figures would not have been received. This shows how a fully manned Veterinary staff would tend to accuracy in the statistics and until such time as this is provided they must remain more or less unreliable.

During the year the Veterinary Assistants attended 2025 outbreaks, of which 87 were also attended by the Veterinary Inspectors. This is fully a hundred more than the number of outbreaks reported by the revenue officials, showing that much is still to be desired in the manner in which the prevalence of disease is brought to light by the village officers.

Ninety-one cases of glanders were reported, all from the Bombay City. Surra was reported from eight districts and from Bombay City. There were 230 deaths as against 56 in the previous year. As equine diseases are very rarely reported by the revenue officials, these figures cannot be regarded as a complete indication of their prevalence.

Rinderpest was reported from 18 of the 20 districts. The total mortality was 13944 against 18502 last year. Although the disease was not so widespread as in the previous year it appears to have been of a more virulent character, the percentage of mortality being 53.22 against 48.9 the previous year.

Foot and mouth disease was reported in all districts except Dharwar. In all 349 deaths occurred against 284 last year. Mortality from this disease is generally

confined to young stock and is due to the neglect of the complications to which it renders them liable. Much benefit accrues to the public by the treatment of this disease by the Veterinary Assistants, and their services for this purpose are much sought after.

*Hæmorrhagic septicæmia* was widely prevalent affecting all the districts of the Presidency except the City of Bombay. 5323 deaths were reported against 2229 in the previous year. 523 outbreaks were attended by the Veterinary staff and the diagnosis of the disease was confirmed microscopically in 178 cases.

*Black quarter* was prevalent in 12 districts and caused 848 deaths. 106 outbreaks were attended and the diagnosis was confirmed microscopically in 36 instances.

*Anthrax* caused 158 deaths. Twenty-eight outbreaks were attended by the Veterinary Assistants and the diagnosis was confirmed by microscopical examination in 4 outbreaks.

Seventy-three cases of rabies came under observation during the year and the brains of 45 cases were sent for examination to the Bacteriological Laboratory, Parel.

#### PREVENTIVE MEASURES.

Inoculations against rinderpest amounted to 35380 in 288 outbreaks. 6190 uninoculated animals and 154 inoculated animals died in the course of these outbreaks. The decrease in inoculation is owing to the smaller number of outbreaks of rinderpest reported during the year.

In 122 outbreaks of hæmorrhagic septicæmia attended, 21027 inoculations were performed. 1414 uninoculated and 13 inoculated animals died in the course of the outbreaks where inoculation was performed. Inoculation against this disease has been introduced very recently but it has made good progress. There is evidence to show that where inoculation can be carried out at the beginning of an outbreak very satisfactory results are obtained, hence the rapid extension of this method of treatment in popular favour.

In 7 outbreaks of anthrax in the Kanara District 1,426 inoculations were carried out. Inoculations against anthrax are carried out only where the diagnosis of the disease has been confirmed microscopically. Forty-two uninoculated animals died during the course of the outbreak, whereas none of the inoculated animals died.

Vaccination against hæmorrhagic septicæmia was carried out in 34 villages where this disease is known to recur and 4784 animals were treated in this way, of which only one died. Vaccination against black-quarter was carried out at the Tegur Farm, Dharwar District, where 78 animals were vaccinated.

The number of villages visited by Veterinary Assistants during the year was 3132. They treated 29,611 cases of contagious disease and 15304 for non-contagious diseases during their tours.

1137 animals, mainly cattle, were castrated by the Veterinary Assistants on tour against 258 last year. This increase must be regarded as satisfactory in view of the strong prejudices that exist against castration, and it shows that the superiority of a surgical operation compared with the more inhumane methods of emasculation usually resorted to is being appreciated.

Maj. Liston, C.I.E., the Director of Bacteriological Laboratory at Parel, detected schistosomiasis in cattle, sheep and goats at the Bandra slaughter house and Veterinary Assistant K. B. Nair of this department was deputed to assist Dr. Soparkar in the investigation. It is probable that the disease is widely prevalent and inquiries are being instituted. The Superintendent is indebted to Major Liston and the members of his staff for their help in this matter.

*Veterinary Dispensaries.* There were 54 dispensaries in the Presidency during the year. The total number of cases treated was 161,211. The new method of recording these cases shows that 83461 animals were

actually treated at the hospitals, while medicines were supplied for 77750 cases to be treated at their homes. Last year the total number of cases treated was 161,668. There is no doubt that but for the prevalence of plague during the year, the number of cases treated would have been much greater instead of slightly less than last year.

No new dispensaries were opened during the year but arrangements were completed to open 7 in April of 1918. Sanction has been accorded to the construction of four dispensaries on the standard plan and there is also one already in hand. The funds for this work has been partly provided from the Wadia Trust.

More dispensaries are urgently required but owing to paucity of funds many District Local Boards are reluctant to undertake their share in their maintenance. This interferes with the progress of the department and a remedy is required if it is to approach anything like meeting public requirements in a reasonable time.

[There follows a satisfactory report of steady progress with Breeding operations, Cattle farms, Stallions, etc. Also a note on the establishment of Cattle shows, sanctioned by Revenue Department, eight of which were held during the year, and of which it is reported:—"It is too early to say what the results may be, but they certainly excited a considerable amount of local interest and keenness on the part of exhibitors. On the whole the commencement must be regarded as very satisfactory. The number of shows will gradually be increased in suitable cattle breeding areas according as experiment proves a success."]

*Subordinate Establishment.* The strength of the subordinate staff at the close of the year was—Veterinary Inspectors 5, Veterinary Assistants 84.

There were eight vacancies at the end of the year and five men were on military duty. The department were thus shorthanded by 13 men.

As in previous years four Inspectors were employed in charge of district work and one in charge of the Northcote Cattle Farm. The work of the Veterinary Inspectors is increasing, Veterinary Inspectors Marathe and Maniar did well in connection with the new schemes for premium bulls and village shows, Veterinary Inspector Nagarseth has as usual carried out the responsible work at the Northcote Cattle Farm, Chharodi, intelligently and efficiently. All the Veterinary Inspectors worked zealously and on the whole intelligently.

The members of the subordinate Veterinary staff have worked well. The reserves have been again very usefully employed in connection with outbreaks of contagious diseases.

The following Veterinary Assistants have done commendable work during the year:—D. B. Mamtara (Ahmedabad), M. A. Merchant (Surat), B. B. Patel (Bulsar), C. N. Desai (Broach), J. G. Kulkarni (Hubli), M. G. Kulkarni (Belgaum), A. B. Gadagkar (Dharwar), M. K. Garudachar (Sirs), F. Gracias (Poona Agriculture Veterinary Hospital), H. B. Shirsathe (Ahmednagar), M. B. Kulkarni (Reserve) and K. B. Nair (Reserve).

*General Remarks.* Lieut.-Colonel Walker states:—

"The work is developing in every direction and the need of more superior staff is becoming an urgent matter. Proposals have been submitted for an increase and for a simultaneous scheme for decentralization, the necessity of which has been previously pointed out.

"I wish to testify to my appreciation of the good work done by Mr. J. D. Buxy, the Deputy Superintendent, during the year. He has been of great assistance to me.

"The members of the clerical staff have also worked zealously."

G. TAYLOR,  
Officiating Superintendent, C.V.D.,  
Bombay Presidency.

[The usual tabular reports are annexed].



## A "CONTRACT" OFFER.

A correspondent sends us the following :—

"Dear Sir,—Enclosed please find a communication signed by Mr. John Hetherton the managing director of the County Insurance Co. and Stud Farm, and which is being sent to all persons in this district who insure animals in the company. Mr. Hetherton is the person who last year stated his company was prepared to finance veterinary surgeons at bank charges, provided they pushed business for the company, see the issue of the V.R., 18th May, 1918, p. 469. All the veterinary surgeons practising in and around York have worked for the company more especially for the Stud Farm."

The County Stud Farm, Sandburn,  
Stockton-on-the-Forest, York.

Dear Sir.—We have arranged with our veterinary surgeon, Mr. Bruce Selous, M.R.C.V.S., to provide attendance and medicine for stock belonging to those farmers who insure under our Whole Stock Scheme per prospectus herewith, for one shilling per head per month added to the premium.

This is a special advantage not given in any other district and we shall be glad if you will avail yourself of it. Our local agent will be glad to give you any information you desire and to take a Proposal for Insurance from you.

19th June, 1919.

Yours faithfully,  
JOHN HETHERTON.

## ARMY VETERINARY SERVICE

## THE ANNUAL DINNER.

The annual dinner of the Corps took place at the Savoy Hotel on Friday 20th June, the following officers were present :—

Major-General L. J. Blenkinsop, C.B., D.S.O., Director-General.

Major-Generals Sir R. Pringle, K.C.M.G., C.B., D.S.O.; Sir F. Smith, K.C.M.G., C.B.

Colonels : E. E. Martin, C.M.G., C.B.E.; W. D. Smith, C.M.G., D.S.O.; R. J. Stordy, C.B.E., D.S.O.; W. B. Walters, C.B.

Lieut.-Colonels : A. E. Clarke, R. C. Cochrane, G. Conder, D.S.O.; F. Fail, O.B.E.; H. Greenfield, C. B. M. Harris, D.S.O.; W. A. McDougall, D.S.O., O.B.E.; A. W. Mason, O.B.E.; J. W. Rainey, O.B.E.; J. Reilly, R. Rowe, W. E. Schofield, O.B.E.; W. J. Tatam, C.M.G., C.B.E.

Bt. Lieut.-Colonels : E. Brown, D.S.O.; A. Olver, C.B., C.M.G.; E. J. Wadley, C.B.E., D.S.O.

Majors : L. Daniels, P. W. Dayer-Smith, O.B.E.; T. G. Heatley, O.B.E.; F. T. G. Hobday, C.M.G.; T. H. Hobson, C. H. Hylton-Jolliffe, K. Mc L. McKenzie, D.S.O.; R. W. Mellard, D.S.O.; R. Porteous, P. J. Simpson, D.S.O., T.D.; W. Stothert, O.B.E.; F. W. H. Thomas, A. J. Williams, D.S.O.; Bt. Major W. Dennington, Quartermaster and Major T. E. Campey, M.B.E.

Captains : A. H. Andrew, J. Baxter, J. Bell, G. W. Bloxsome, H. Bone, M.C.; W. J. Cade, C. W. Cartwright, H. V. Fenn, J. Gregg, O.B.E.; J. J. Hilliard, O.B.E.; J. W. Hopkin, H. C. Jagger, O.B.E.; W. N. Jurgenson, R. D. Macintosh, C. S. Northcott, J. F. Player, C. Rees-Mogg, O.B.E.; A. W. Reid, T.D.; C. H. Sheather, R. T. Smith, A. Spreull, D.S.O., T.D.; G. Sutton, G. S. Thornewill, R. C. G. Thwaytes, A. E. Willett, Qrms. and Capt. C. Budd, M.B.E.; E. Epps, W. J. R. Gordon, J. F. Ives, R. H. Jameson, W. G. Thornton, Qrms. and Lieut. R. J. Easterbrook.

The following guests, Colonels A. E. Kendall, C.M.G. and C. E. Edgett, D.S.O., representing the Australian and Canadian Army Veterinary Corps, were present.

## Colloids.

The following is an extract from a Chadwick Public Lecture on "the use of colloids in health and disease," by A. B. Searle, given at the Medical Society of London on Wednesday, Feb 26th : Sir William J. Collins, K.C.V.O., M.D., Chairman of the Chadwick Trustees, in the chair.

"Very remarkable results have been obtained during the past few years from the study of a state of matter which is intermediate between that generally recognised as 'suspended' in a fluid and that in a true solution, and known as the colloidal state. Many substances of widely different composition and characteristics can be obtained in this state and their properties then differ in many ways from what would be anticipated.

The particles of colloidal matter are very minute, but by means of the ultra-microscope they may be recognised as endowed with violent motion. Many factors conducive to health depend on the possession of a colloidal character; thus the purification of sewage depends almost wholly on its ability to form a colloidal solution with grease and dirt. The researches of the late Henry Crookes, a son of Sir William Crookes—have proved the very effective germicidal power of elementary colloids; strikingly shown by a number of lantern slides of cultures of bacteria. This germicidal property soon led to their being employed as medicines as well as germicides—with remarkable results. Crookes' work has been followed by further investigations which have resulted in the preparation of silver, copper, mercury, manganese and palladium, and of such non-metallic elements as iodine and arsenic in the form of colloidal solutions which are isotonic with the fluids of the human body. These researches have made available a new series of liquids of great importance in the treatment of some of the most serious diseases. Amongst their most striking characteristics are their freedom from poisonous properties which render the same substances risky when administered in the form of ordinary solutions. Large doses of colloidal solutions may be given with impunity, and cures which are ordinarily prolonged, are effected rapidly.

Although the first remedial germicidal colloidal metals were first prepared in 1910, the rapidity with which they and other colloidal solutions have been adopted, and their extensive use in practice is a certain indicator of their value. Attempts to produce similar preparations were made by several German chemists, but most of the foreign preparations lack stability, and are decomposed before reaching the seat of the disease. The British colloidal solutions on the contrary are quite stable and effective.

The success which has attended investigations on the use of colloids as remedial agents is great and affords a basis of hope that further developments will be still more beneficial. It is probable that serum and vaccine thereby will ultimately be resolved into questions of colloidal chemistry, but in the meantime the use of colloidal solutions of certain elements appears to offer a means whereby they can be accurately prepared and administered with a higher degree of efficiency than is possible with some of the more complex synthetic compounds at present in use."

## Colloids in Medicine and in Industry.

A collection of admirable monographs on colloid chemistry and its general and industrial applications has been published for the Department of Scientific and Industrial Research by His Majesty's Stationery Office. This report, which is the second of a series, is the outcome of the work, during the year 1918, undertaken by a committee acting under the Chemical Section of the

British Association for the Advancement of Science. The first report was published in 1917, but the Association encountered financial difficulties consequent on the war, and found itself unable to meet the greatly enhanced cost of publication, and the question of publishing this second report of the work done in 1918 was referred to the Department of Scientific and Industrial Research. This department ultimately decided that the results of the work should be made accessible, on the grounds that they promised to be of considerable value to research workers in colloid chemistry and to many branches of chemical industry. It was therefore arranged that this second report should be published and issued at a price of 1s. 6d. net by H.M. Stationery Office on behalf of the Department of Scientific and Industrial Research. A wide field was covered, for the important subjects dealt with in the present report are as follows: Peptisation and precipitation, emulsions, the Liesegang phenomenon (formation of zones in jelly), electrical endosmosis (including electro-therapeutics, the electro-osmotic infiltration of drugs), colloid chemistry in the textile industries, colloids in agriculture, sewage purification, dairy chemistry, colloid chemistry in physiology, and the administration of colloids in disease. Our familiarity with the various properties of colloids shows considerable development since the time when Thomas Graham, in 1861, conceived the idea of the colloidal state of matter in his critical, though simple, experiments on the passage of fluids and gases through membranes and porous fabrics. Little importance at the time was attached to Graham's studies, and no one seemed to think it worth while to continue this line of research. Yet many years after it became obvious that the activities at work leading to the success of many great economic and industrial processes were based on colloidal conditions. Industry in its turn, as it has done before, opened up again suggestions of the highest value in medical researches, showing Graham to have been right in attaching importance to the part played by colloids in the principal life-processes. It was indeed a remarkable fore-sight which led him to write the following trenchant sentences in his communication to the Philosophical Transactions nearly 60 years ago: "The colloidal is, in fact, the dynamic state of matter, crystalloid being the static condition. The colloid possesses *energia*. It may be looked upon as the probable primary source of the force appearing in the phenomena of vitality. To the gradual manner in which colloidal changes take place may the characteristic protraction of chemical organic changes be referred." This is tantamount to saying that all life-processes take place in a colloid system, only those structures being considered as living which are at all times in a colloidal state: that is a view which receives acceptance to-day by the advanced students of bio-chemical research.—*The Lancet*.

#### Prosecution by R.O.V.S.

At the Police Court, Ware, on Tuesday morning, June 3rd, before Messrs. J. H. Buxton (in the chair), S. Croft, A. H. Rogers, C. N. Tween, and H. S. Gilbert.

Samuel Smith, Melton, Yorkshire, did not appear to answer a summons for unlawfully using and taking the title veterinary surgeon, not being duly registered as such, on March 19th.

Mr. H. M. Gisby appeared for the Royal College of Veterinary Surgeons, and stated that he received a telegram that morning from defendant addressed to his employers saying that he had missed the train, and asking them to do their best. The prosecution was under section 17 of the Veterinary Surgeons' Act, 1881. The

College naturally had to protect their duly qualified members, and it was of the greatest public importance that they should do so. They had to ask that such cases be dealt with severely. The evidence in the present case was that defendant examined a horse which was to be sent to Ireland. The Board of Agriculture required that for every animal so transported there should be a certificate signed by a duly qualified veterinary surgeon stating that the horse was free from disease. Defendant signed such a certificate, but the official in Ireland to whom it was sent, on looking up the register of veterinary surgeons, found that his name was not there, and reported the case for prosecution.

George Howard Gibbons, 33 Essex Street, Strand, London, clerk to the solicitors for the Royal of Veterinary Surgeons, proved that defendant was not duly qualified.

George Nicholson, Round House, near Ware, stud groom to Col. R. P. Croft, gave evidence of witnessing defendant sign the certificate (produced).

Mr. Gisby said he submitted that the case was duly proved, and asked for a conviction with costs of the prosecution.

The Bench retired to consider their decision, and on returning the chairman announced they were of opinion that the charge was proved, but they were also of opinion that the defendant committed only a technical offence. They would not record a conviction, and they considered the case would be met on payment by defendant of £2 2s. towards the costs of the prosecution. The court costs would be remitted.—*The Hertfordshire Mercury*.

#### Failing to notify mange.

The following is reprinted as it appeared in *The Surrey Times* of June 21st.

#### Veterinary Surgeon Fined.

Before the Guildford Borough magistrates on Monday, Harry James Boylett, 16 Trinity Churchyard, Guildford, was summoned for that he being a veterinary practitioner employed to examine a horse at Guildford, did fail to notify with all practicable speed the suspected existence of parasitic mange therein to an inspector of the local authority during the month of April.—Mr. W. Price Hughes appeared for the defence.

George Hedges, Down Road, Merrow, managing Watford Farm, said he let a horse out on hire some time ago, and it returned to the farm in April. The horse developed a sore, and he called in Mr. Boylett. He said he thought it was the mange, and that he could report it if he liked. He said he would give him a bottle of disinfectant, which witness called for.

Albert Butcher, Watford Farm, said he knew Boylett very well. He had treated his animals on several occasions.

John A. Cunningham, M.R.C.V.S., said on May 5th he was called in by the Borough Police, and found the horse had parasitic mange of some standing.

The Chief Constable (Mr. W. V. Nicholas) said no notice was received that the horse was suffering from parasitic mange.

Mr. Price Hughes said defendant had no diplomas, and did not pretend to be a veterinary surgeon. If the bench upheld that he was a veterinary practitioner, he would plead guilty to a technical offence.

In imposing a fine of £5, the Mayor said the magistrates considered that it was a very serious case.

## DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Rabies.		Anthrax		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Cases Confmrd		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.		Out-breaks (a)	Slaughtered.*
	Dogs	Other Animals											
Gr. BRITAIN.													
Week ended June 21	1		4	4					97	182		65	36
Corresponding week in	1918		3	4			1	4	75	135	2	56	31
	1917		3	4			1	1	33	57	2	56	32
	1916		8	9			1	2	19	47		96	271
Total for 25 weeks, 1919	110	3	95	125	19	154	14	40	3378	6659	213	915	381
Corresponding period in	1918		141	159			19	55	2923	5580	242	666	244
	1917		288	325			14	25	1533	3098	380	1359	584
	1916		309	366	1	24	25	67	1450	3402	173	2495	7811

(a) Confirmed. (b) Reported by Local Authorities  
Board of Agriculture and Fisheries, June 24, 1919

† Counties affected, animals attacked :—  
Excluding outbreaks in army horses.

IRELAND. Week ended June 14	...	...	...	...	...	...	...	...	Outbreaks 8	2	...	1
Corresponding Week in	1918	...	...	...	...	...	...	...	4	3	1	1
	1917	...	...	...	...	...	...	...	2	8	2	13
	1916	...	...	...	...	...	...	...	2	1	7	51
Total for 24 weeks, 1919	...	...	...	...	...	...	1	1	87	152	19	60
Corresponding period in	1918	...	1	1	...	...	...	...	73	170	9	29
	1917	...	3	5	...	...	1	1	26	222	132	894
	1916	...	2	6	...	...	...	...	33	215	145	782

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, June 16, 1919  
NOTE.—The figures for the Current Year are approximate only. \* As Diseased or Exposed to Infection

## SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919 :—

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## Personal.

Mr. J. F. Durkie, J.P., M.R.C.V.S., who is a practical farmer and member of the Dundee Harbour Trust, has been appointed by the latter to represent them on the deputation which is to meet the Board of Agriculture in London to discuss the question of raising the embargo on the import of Canadian cattle.

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Five columns started from the neighbourhood of Pretoria and were to advance due east, where they would be joined by three more advancing successively from the north, the whole converging and moving south-west would, it was hoped, eventually bring the forces face to face with the enemy in the bottom pocket of the Transvaal.

On 28th January the first five columns began the advance, driving east on a line 30 miles in length. The marches were about 15 miles a day, and were intentionally short, as a good deal of work had to be done on the road. It is a long story, but in brief all the commandos belonging to the places traversed passed through the meshes of the net. The only forces remaining before the driving line being those drawn from the extreme S.E. of the Transvaal, towards which the "drive" was taking place. These pushed along covering the retreat of their families and stock, now turned out on the veldt.

Very skilful management was required to secure the due co-operation of all the columns and their regular feeding. Smith-Dorrien, in command of one of the two columns passing from north to south was escorting an immense supply of food and stores. Before he could link up with the five columns going east he was attacked at night by Botha near *Lake Chrissie*. The horses and transport were parked in the centre of the camp, and hedged in by infantry battalions. At 3 a.m. on a pitch dark night a crushing magazine fire was suddenly opened on the sleeping square, which stampeded the horses of the 5th Lancers and Imperial Light Horse, thereby intensifying the confusion which naturally existed. These horses broke out through the square, and galloping towards the enemy were turned and driven back. In the confusion thus caused the enemy destroyed two of the pickets, but no further damage was done, and Botha shortly afterwards withdrew and escaped from the net. This attack cost Smith-Dorrien 300 horses killed or stampeded.

Steadily all the columns continued to converge on the S.E. corner of the Transvaal, and were now lined up from Swaziland to Natal, thus cutting off the S.E. pocket which ends at Zululand. Rear-guard affairs were frequent, and the columns struggled to get into position. The critical moment had now arrived, but the operations were delayed by weather and want of food. Supplies were coming from Natal, but the weather was dreadful, the roads impassable, the country most difficult for wheeled transport even under favourable conditions. The first part of the convoy, consisting of 160 waggons, left Newcastle on February 12th and reached Utrecht on 13th. The road from Utrecht to Luneberg is only 35 miles, but steep and there are at least three rivers to cross. It took two days to get the convoy nine miles up a long and steep ascent, and on 17th the rain fell. For six days and nights it rained without ceasing; every spruit became a raging torrent, and roads were axle-deep in mud, the waggons were bogged,

and the troops lying in the open over a front of 80 miles were starving for the supplies so near and yet so far. Finally, supplies had to be sent across the river by wire rope, and this expedient, together with pontoons and rafts, had to be used on two or three other rivers, so as to lighten the waggons considerably for the wretched oxen to get them across. It was the 2nd March before supplies reached French; on the 7th the men were temporarily on full rations, but the horses got merely a microscopic allowance of corn and the mules nothing whatever for a fortnight later.

For two weeks the men had had no food but what could be obtained locally with great difficulty. On 6th March the rain again began, and it rained continuously for eight days. From the 16th Feb. to the 16th March the troops were immovable under the terrible climatic conditions mentioned, and in a state of semi-starvation. If this was the case with the men, that of the animals was worse. The deluge and the break down in the transport of the supplies doomed this sweep to failure. When the weather cleared it was again pushed on, but with very little success; the Commandos melted away. Botha was outside the ring fence, in fact was riding into the Free State to talk over with De Wet the results of his raid into the Colony, and was back again at Bethel while our troops were hemmed in by floods and tied down by starvation with their heads facing the other way.

The results of these operations were disappointing. They involved the loss of two and-a-half months in time, and from a military point of view may be regarded as practically barren. A large amount of stock was captured, according to the Official History\* 272,000 head. The "Times History" places it at "between 7000 and 8000 horses and mules, and a quantity of cattle which it would be profitless to reckon, since through sheer inability to keep or kill them the greater part escaped."†

Immense supplies were captured or destroyed, yet we have seen our force starved, showing the difficulty of carrying food on its feet, and the waste of food supplies which occurs in this class of warfare. The flour which is burned to-day because it cannot be carried may be worth its weight in gold in a day or two.

The loss of horses in this drive was estimated at 2000,‡ but this can only refer to the dead loss. Casualty returns for one column (that of C. E. Knox) show that between 27th Jan. and 12th April the total loss of horses was 50%, and the dead loss 20%. Only seven horses in this column were killed in action, 255 were destroyed, 64 died (all from horse sickness), and 36 were missing or abandoned.

Assuming the above figures to apply to the other columns, the estimated total loss may be taken at 5000, and the dead loss at 2300. The latter figures

\* Vol. IV., p. 122.

† Vol. V., p. 181.

‡ Cd. 963, p. 49, Cable 79.

then compare very well with the above official cable, which was despatched on 20th March before the operations were concluded, for on 26th March the columns were occupying a line 120 miles long, and from this further operations occurred which were not concluded until 13th April.

A return for Alderson's Column between 8th January and 22nd April gives the astonishing total loss of 80% (nearly), due to exhaustion, debility, sore backs, and horse sickness. The dead loss is unknown.

The losses from "horse-sickness" during this "drive" were very heavy, as the columns were operating at the worst season of the year. Starvation also played an important part, as may be seen from the following table of the daily amount of corn issued per horse:—

Jan. 26 to Feb. 10	10 lb. corn daily		
Feb. 11 " 20	8 lb. "		
" 21 " "	3 lb. "		
" 22 " 28	nil		
Mar. 1 Mar. 12	8 lb. "	mules nil	
" 13 " 20	nil		
" 21 " 25	10 lb. "	" 5 lb.	
" 26 " 30	7 lb. "	" 3 lb.	
" 31 onward	10 lb. "	" 5 lb.	

The cause of this starvation was the breaking down of the transport referred to above, owing to the days and nights of continuous rain. The loss would have been far greater but for the fact that grazing was possible at a time when military operations were impossible. The continuous wet, together perhaps with the irritating effect of dirt caused a large number of shackle and other wounds to assume a very unhealthy condition, resembling in appearance and indolence the "veldt sores" which affected the men.

During this long drive across the Eastern Transvaal fresh measures had been adopted for the care of sick and debilitated horses; each column was directed to maintain a small permanent staff under the veterinary officer for this purpose. The animals were brought on quietly with the convoy in rear, grazing as they travelled, and the relatively short marches enabled this rough and ready system of mobile hospital to be rendered most useful. The cases were dressed on reaching camp. No transport was allowed for these hospitals. Even at this period of the war the essential factor for field hospital organisation was denied. The whole question of hospitals will, however, be considered in a separate section at the end of 1901.

#### ORANGE FREE STATE.

OPERATIONS FEBRUARY-JUNE, 1901.

#### ELLIOTT'S "DRIVES."

The only column returning to the Free State in the chase after De Wet, the movements of which we have noticed, was that of Plumer (p. 156). The others followed, some crossing at Norvals Pont, others to the west at Orange River Bridge on the Kimberley line. Thus twelve columns came bust-

ling back into the Free State. C. Knox, Crewe, Pilcher, and Bethune crossed at the Orange River Bridge and scoured the country in the direction of Bloemfontein. This was entered a fortnight later after meeting with constant opposition from small bands of the enemy, which, though not identified at the time, were the commando fragments shed by De Wet's main body as it proceeded north. Among those crossing in the east at Norvals Pont were Haig, who made for Hertzog in the direction of Luckhoff, but was then called to the line, arriving at Edenburg on 10th March. Hickman and Thornewcroft also crossed, and were at Springfontein on 9th March. Under the command of General Lyttleton a big "drive" up the eastern part of the Free State from the Orange River to the defended line running between Bloemfontein and Basutoland was now organised with the three eastern columns above mentioned, together with the three under Bruce Hamilton. On the 10th March it began to advance, hampered by tired animals and mud, and as it slowly rolled northwards Bethune and Pilcher were able to take part in the sweep which, excepting for stock, was nearly destitute of military results. It terminated on 20th March, 4300 horses were captured and enormous masses of stock. Bearing in mind the cockpit this area of the Free State had been for a whole year of the war, and the scores of columns belonging to both sides which had traversed it, it is astonishing to find so many horses among the captures, and indicates the extraordinary resources of the country which we were now only attempting to utilise. So great had been the drain on the Remount Department that it was found impossible to meet the ever growing demand except by utilising the animals of the country after the enemy had selected the best.

Another sweep was made by the three columns of Bruce Hamilton, together with that of Hickman, from the Basuto border towards Dewetsdorp and Wepener, and from there concentrated south, as Kritzinger, who was still roving about Cape Colony, was expected to cross the Orange and endeavour to get north. Sweeping columns were also working in the vicinity of Heilbron under E. C. I. Williams. Rundle's two mobile columns of Campbell and Harley, to which Pilcher was later joined, were sweeping around Ficksberg, Thabanchu and Vrede, while Paris, who had returned to Kimberly on 12th March, after the De Wet hunt, swept up to Boshof and returned with large quantities (9000 head) of stock.

It was now April, 1901, and the change from seasoned to unseasoned soldiers had been going on for many weeks. The importance of this change from a horse-wastage point of view is considerable, and in considering animal losses during 1901 it must not be lost sight of. The M.I. which we first saw at Rameh in February, 1900, had long been a fine body of soldiers, the back-bone of many a column, but the toll of a thirteen months campaign is heavy, and drafts from these regiments amount-

ing to 2000 men had now arrived in the country with very limited experience. Some of these received their first insight into war by assisting in the chase after De Wet (p. 154), but all needed time for development.

In March Major-General E. L. Elliot arrived from India for the purpose of assuming Command of a Division 6000 strong, composed of the columns of Broadwood, De Lisle, and Bethune\*, which was concentrating at Kroonstad. Owing to the fact that his ranks were filled with inexperienced soldiers, and his horses either remounts or just off board-ship, Elliot wisely determined to make his first drive educational. He selected the west of the line between Kroonstad and the Vaal, and on 10th April marched north towards the latter in easy stages, and turning east converged at Vredefort Road on 20th. The opposition had been slight, but De Wet, who was on his way south to Petrusberg, could not resist the temptation of capturing a patrol. In this sweep Elliot obtained 35,000 head of stock, 184,000 lbs. of grain, and many waggons. E. C. I. Williams, who was independently working the Vaal between Heilbron and Frankfort, brought in 14,500 head of stock, and had destroyed tons of flour and the mills which had ground it. † This destruction of food stuff appears strange in the face of the feeding difficulties the troops experienced, but the material could not be transported.

Elliot's second "drive" was now projected, the principal of which was that his three columns should move on a broad front of 40 miles, the flanks of which would touch Heilbron and Lindley. Into this driving line as it advanced the enemy was to be forced by other columns operating from the north and south. A wheel to his left would then bring his columns facing the Vaal on which he was to advance, and into his arms the scattered bands were to be driven by columns operating from the Transvaal (Heidelberg and Standerton). This was not all, having reached the Vaal the force was to move south-east and sweep the country bordering on the Klip River as far as the north point of Natal.

The operations began on April 24th, and by the 28th Reitz had been touched in the wheel north from Lindley. On 30th Frankfort was reached, and on 4th May the Vaal. On 7th the force moved south-east to Vrede, and at De Lange's Drift over the Klip River contact was made with Colville from Standerton to whom the spoils of the drive were handed, amounting among other things to 70,000 head of stock and many waggons, 9000 head of stock had previously been sent back to the line *via* Heilbron. A four days sweep along the Klip brought the force on 19th May to Botha's Pass in

northern Natal, where 2200 captured horses, 600 oxen, and 16,000 sheep were despatched to New-castle. Twenty-five miles west of Botha's Pass Elliot discovered a place not figured on the maps, an isolated horseshoe-shaped series of hills ten miles in length and of fantastic shape, "crags so sheer, and so squarely hewn by nature, that the hills appeared to be crenelated by a parapet of Norman castles." This place was a magazine and remount depot for the Free State forces. It was raided by Elliot, who captured 1700 horses which he sent into Harrismith by De Lisle.

Elliot on 3rd June was directed to return to Kroonstad *via* Reitz and Lindley; on 6th June a laager of the enemy was raided, and a large convoy captured by a small party of the 6th M.I. and South Australians belonging to De Lisle. This force in turn was set upon by a superior body of the enemy, which compelled the party to seek shelter in a kraal and leave the captured waggons. Fighting was carried on by picked shots at 50 yards range and resulted in heavy loss on both sides. The horses were partly covered by the walls of the enclosure, nevertheless 100 were killed and 50 wounded. †

Elliot's Division reached Kroonstad in June after a march of not less 800 miles, and the following were the casualties during the seven weeks covered by the operations:—

Died and destroyed	-	567
Killed in action	-	177
Stampeded or captured by enemy	-	51
Sent to hospital during the march	-	216
Sick on arrival at Kroonstad	-	1430 of which
631 were surgical cases, principally lameness.		

Taking the strength of the Division on leaving Kroonstad to be 6000, the total wastage amounts to 40 per cent., the dead loss to 13½ per cent.

The total number of mules employed with the Division was 2252, of which only 36 died or were destroyed. Of 1600 oxen only 36 died. These figures for the transport are very good, and due to the short marches made and the care taken that the animals were invariably outspanned, watered and rested at mid-day.

The food allowance for horses was 10 lb. grain and 6 lb. for mules, in both cases a mixture of maize and oats. The enemy started veldt fires around the column, always so arranging that the fire was driven towards it. Under the cover of this attacks were frequent, but the most serious result was the loss of grazing to the animals; fortunately the worst trouble in this respect was towards the end of the march.

\* "Official History," Vol. iv., p. 104

† Curiously enough, both De la Rey and De Wet were in this attack, the former had come on an official visit to meet President Steyn. The redoubtable trio were disturbed at breakfast by a messenger, who informed them of the captured convoy and laager. Accordingly they went to its rescue, and but for the appearance of De Lisle, four hours after the fight began, there is no doubt what the result would have been.

\* The following Veterinary Officers were with General Elliott:—Major Mann, S.V.O., Capt. Boase, Cape Colony Forces, Lieut. Lockwood, I.Y., Lieut. Anderson, I.Y., C.V.S. Parker, Crawford and Farrell.

† "Official History," Vol. iv., p. 101.

The total amount of stock collected by this Division was immense, amounting to 131,500 head; of these 15,000 were horses. One thousand of the captured horses were utilised during the march to replace casualties, but they were very unfit, and after being ridden four or five days were returned to the "mob" which was being driven along with the columns. On an average 20% of the captured horses were suitable for the ranks after training, and 40% were such as might be utilised by the enemy for a few days. The remainder were foals, yearlings, or mares too heavy in foal to be able to gallop. These figures are of interest in considering the proportion of horses in Cape Colony which might have been utilised as remounts. The estimate was made by Major Mann, A.V.D., S.V.O., of General Elliot's Division after weeks of observation.

The chief sickness met with during the march was biliary fever: the most usual cause of death was exhaustion. The surgical cases were principally lameness, sore backs and heel galls. No less than 111 cases of sore back and heel gall were sent to Standerton by Colville from the 1st and 3rd Dragoon Guards and Broadwood's Yeomanry. The chief cause of lameness was laminitis; the horses could not be kept shod, in fact, there was not a shoeing smith in the whole of De Lisle's M.I.

The Division had a veterinary hospital, which was fixed at some convenient point, generally Heilbron, for the reception of cases. It moved between Heilbron and Kroonstad, but it was found that it would have been of more use had it accompanied the Division.

Other operations occurring in the Free State may now be noticed. Rundle's two mobile columns had for some time past been holding positions as garrison troops; one of these, Campbell's, was finally available for raids, and on 20th April Rundle with this column moved out of Harrismith for Bethlehem (50 miles). It is characteristic of the state of the country at this time that, to reach Bethlehem, cost him four days incessant skirmishing.† On 29th, Rundle entered the Brandwater basin, reaching Fouriesburg on 2nd May, where for a month he operated from this point. He left the basin on 4th June with 6000 head of stock. His 500 new Yeomanry, "some of whom had scarcely learned to ride, were found impotent in the wild ravines of the Wittebergen."‡

Between 22nd April and 8th May Pilcher and Thorneycroft raided the Winburg, Senekal and Doornberg area. From the 13th to 22nd May both of these columns worked in the direction of Bothaville, Commando Drift and the Vaal, having numerous encounters, and returning to the line with 5000 head of stock.

The six columns guarding the Orange River under Lyttelton in March had little to do, though

there were several sharp encounters with local bands, including a 40-mile march by Munro with a large haul of prisoners. The Trans-Caledon region was now ordered to be cleared; this was the recruiting ground of Kritzingen, who, in spite of the numerous columns along the river was actually, though unknown to his enemy, obtaining horses in the Free State in May. He experienced no more difficulty in returning to Cape Colony than he had in leaving it. The first sweep of the Caledon district produced 97,000 head of stock. The general trend of the columns was now in the direction of Cape Colony; Munro, Haig, White and Hickman had all gone thither before the end of May. In the same month W. H. Williams had swept along the north bank of the Orange River to Orange River Station, and was surprised to find the country still full of stock. He returned with nearly 100,000 cattle and sheep.

Bruce Hamilton's information lead him to organize a sweeping movement from south to north of this part of the Free State between the Orange and Modder Rivers. Seven columns were made out of his original three, and with the co-operation of C. Knox a drive was organised against a barrier of posts held by the Constabulary, and thrown out across the Free State. But though it employed eleven columns it lead to no important results. The whole of the Free State between the Vaal and Orange Rivers, and west of Bloemfontein was now for the remainder of the month continuously raided by six columns. Simultaneously to the east of the railway, *i.e.*, in the Reddersburg-Dewetsdorp area, three columns ravaged the country, and though large quantities of stock resulted from these raids no conclusive military results were obtained.

On 22nd June, Elliot started off from Kroonstad on another drive, this time with four mounted Brigades, Bethune's, De Lisle's, Broadwood's and Lowe's, a total of 5670 horses, 2826 mules, and 1840 oxen. He swept the country between Lindley and Senekal, the objective being Springfield Drift near Harrismith. This was reached on 2nd July, and was effected by forced night marches and night raids, but all were fruitless for the enemy had full warning, moreover, they were most exhausting to animals; Elliot captured 3000 horses and 3000 cattle. This march to Springfield was more exhausting than those previously carried out, for water was scarce and the veldt burned. From Springfield the Division, in co-operation with Rundle's three columns, swept north over a frontage of 50 miles, taking in Reitz. At this place Broadwood contrived a surprise for a Commando, but found he had captured all the Free State Government with the exception of President Steyn, who escaped under remarkable circumstances.\* Elliot returned to Vredefort Road *via* Heilbron, which he reached on 13th July.

\* Six thousand sheep were destroyed for footsoreness, or for inability to cross the drifts.

† "Official History," Vol. iv., p. 15.

‡ "Times History," Vol. v., p. 241.

\* The President was only 80 yards away from a man who was an expert shot, but whose rifle refused to work through the oil being frozen in the breach! The horses had already done 30 miles, so he could not be galloped down.

The casualties from the 22nd June to 13th July were 4% dead loss and 10% total loss.

It was during the March from Springfield to Heilbron that the new order was carried out of destroying all captured animals not of use to the force. Such work cannot be satisfactorily done while troops are marching daily, for time does not admit of the needful careful draughting, it therefore becomes very wasteful. Elliot brought back 4000 horses, 3,600 cattle, and 54,000 sheep.

Rundle, leaving Elliot, continued his movement to the north, sweeping up immense supplies and stock, 10,000 horses, 6,000 cattle, and 46,000 sheep. We have seen that Elliot had only a few weeks previously passed over part of this ground, yet Rundle's movement resulted in the above captures. Column after column had yet to move about and through this country before it could be declared swept. Having reached the Vaal south of Stander-ton Rundle returned to Harrismith, arriving on 3rd August.

Rimington now entered the Orange Free State from the South-Eastern Transvaal, where he had been employed together with Plumer in the Wakkerstroom clearance. He, like Benson, had adopted the method of night-raiding and day-resting. By this means he rested and fed his horses, and the result was to render him the most mobile and dangerous adversary which the enemy in the Free State could meet. From the middle of July to the end of August he was in the Heilbron-Kroonstad area, constantly engaged in clearing—that is to say destroying or removing supplies, stock, agricultural produce, and implements—and fighting. He imitated the "doubling back" methods adopted by the enemy; he travelled immense distances, 60 miles in a night, and rarely without some profitable results.

All this was due to his skill as a horse-master, of which he probably had few equals and no superior in the field. None knew better than he the value of food, rest and condition, and the necessity for the constant supervision of the master's eye. The veterinary officer with him was C.V.S. (now Capt. Head, A.V.C. Reserve, and we are fortunate in having from the pen of that officer\* an account of the changes which were brought about in the horses of the Inniskilling Dragoons when Rimington assumed command in January, 1901. Under this commander the neglect of horses became a crime, and men who through carelessness laid their horses up marched on foot, and on arriving in camp were placed on picket duty. His great object was to interest them in the care of their horses, and to be proud of their animal's fitness and condition.

All this required time to effect, but with Rimington progress was steady. We now meet him in the following August an efficient fighting machine, with horses capable of real hard work, to gain

which all non-essentials were sacrificed. Neither comfort nor appearances were studied, and not an ounce of unnecessary weight was carried on the saddle. He did not destroy supplies if he could carry or eat them; he never passed a water supply without watering his horses; nothing excepting military pressure would induce him to pass a place where grazing could be had. His horses came first in everything; his men, as he himself said, were capable of looking after themselves.\* Rimington did not learn horse-mastership in the Field; like Benson and De Lisle he brought the knowledge with him. It was untingered by the Epsom salts, diuretic ball and tonic powder management so common in the Artillery, where fatness and fitness are frequently confused.† He knew what horses could yield under generous care and treatment, and he stands out not as a solitary, but as one of the highest examples of horse-mastership in the war.

\* R.C. Erid., Vol. ii., Q. 12,672.

The evidence of this officer before the Royal Commission, Vol. ii., p. 26, is a liberal education.

Q. 12,663. And you think the question of horse management is one of the first things in a campaign?—A. Absolutely the first thing—it is 75 per cent. of the campaign as far as I can see.

Q. 12,664. I see you used rather drastic measures with the men who did not treat their horses well?—A. Yes, we made their lives a burden to them.

Q. 12,668. You do not mean that there should be any disregard of the health of the men?—A. I disregard the men's health completely compared with the horses. A man can speak up for himself, and will no doubt do so and go to the doctor, but the horse cannot say anything.

Q. 12,671. I do not quite understand what is meant by this statement which appears in your précis "With all mounted troops extreme severity and absolute disregard for the men's health, feelings, or safety is necessary in this respect?"—A. Yes, the horse is the first thing absolutely. You must look after that . . . . .

Q. 12,672. . . . . —A. I look after the horse first—the man looks after himself.

Q. 12,673. But the horse would not be of use without the man?—A. We found that there were plenty of men; we never were short of men, we always were short of horses.

Q. 12,674. Still the life of a man has to be thought of?—A. What is the life of a man? A man's life is nothing in war. You do not care whether men are killed or not as long as you attain your object.

Q. 12,676. . . . . —A. I put the horse first. As long as I have plenty of horses I can manage. I do not mind about the men.

† Reference has been made at p. 117 to the organization of the Artillery. As horsemasters they have no superiors, devotion to the welfare of their animals is part of their service creed. Unfortunately they love drugs and nostrums, and attribute to these, results which are really the outcome of their own admirable care and supervision. Their weak spot is their love of a fat horse.

\* "The Wear and Tear of Horses during the South African War," Lieut. A. S. Head, A.V.D., *Journal of Comparative Pathology and Therapeutics*, 1903.

## TRANSSVAAL.

## WESTERN TRANSSVAAL,

FEBRUARY-MAY, 1901.

The events immediately prior to those now to be recorded have been noted at p. 156. It was all important to keep the Western Transvaal quiet while French's big drive in the Eastern portion was taking place. There was no great activity on the part of De la Rey for the reason that he was short of horses, and had eventually to purchase in the Free State.\* He was now to the west of the Magaliesberg in an impossible country for British columns. Babington was lying in an entrenched camp a few miles south of Olifant's Nek, and a force was at Roodepoort near Krugersdorp which had recently been repulsed by Smuts in the Gatsrand. Two new columns were formed to dislodge the latter, Shekleton with 1200 men of the M.I. just arrived in the country, and Benson with a very mixed column of odds and ends, comprising 580 mounted men, infantry and guns. Smuts escaped after the columns had been marching for a week, and in the early days of March Kemp also disappeared to join De la Rey in the west, stealing past Babington in the night. Meanwhile, Methuen in the far west at Taungs was moving east on Klerksdorp, and was intercepted by De la Rey at *Hartebeestfontein*, close to Klerksdorp, and had to fight his way in. His march was 150 miles. He then turned south to cross the Vaal into the Free State for the relief of the garrison of Hoopstad, but was unable to cross the river owing to floods, and had to work along the bank to Fourteen Streams, which he reached on 14th March. After relieving Hoopstad he spent all April getting his force in order, for he had now lost all his old Colonial troops; his Yeomanry also were leaving and being replaced by the second contingent.

During Methuen's journey along the Vaal to Fourteen Streams, *Lichtenburg* was attacked and invested by De la Rey on 6th March; it made a gallant defence. Among the garrison were 100 Yeomanry. Their horses were saved from destruction during the investment by being placed in the Dutch Church. Babington and Shekleton were sent to the assistance of Lichtenburg, and leaving Ventersdorp on 15th March took the wrong direction; while they were going west the enemy opened out, allowed them to pass by and then went south. Fortunately the error was discovered. The columns were attacked by De la Rey at *Geduld* on 22nd March, where the enemy again put into practice their new manœuvring of charging and firing from the saddle. The two columns closed in, and De la Rey retreated hampered by his transport. He was pursued, and again the next day until the horses could go no further, but the results, especially at *Wildfontein* on 24th March, in captures were excellent, and both columns returned to Ventersdorp. A shuffling of Column Commanders now occurred in April; Shekleton being replaced by

Rawlinson, and Benson passing to the Eastern Transvaal for the Northern operations. De la Rey dispersed his forces. Babington and Rawlinson, after a good deal of marching in wet weather, surprised Smut's laager on 14th April at *Braakpan*, 25 miles north-west of Klerksdorp, and again made good captures. In spite of these successes the enemy hung about in the triangle formed by Ventersdorp, Lichtenburg and Klerksdorp. Meanwhile Methuen was railed to Mafeking and marched to Lichtenburg, where he arrived on 3rd May; five columns operating from the east worked towards him, but everything appears to have gone wrong, and the operation was nearly barren of results.

## STRENGTH OF COLUMNS.

Lieut.-Col. Benson	-	-	360 horses
" Sir H. Rawlinson (late Shekleton)	-	-	1500 "
Brig.-Gen. Dixon (late Cunningham)	-	-	1050 "
Major-Gen. Babington	-	-	860 "
Lieut.-Gen. Lord Methuen	-	-	1290 "

With the exception of the force under Methuen and the chase on 23rd and 24th March there were no long marches performed by these horses, but the work, though interrupted for two or three weeks at a time, was very trying, especially as the change from old to new Colonials and Yeomanry Contingents was occurring. Dixon, for example, received several hundreds of men during April, and had, like Methuen, to devote that month to their training.

During the operations narrated horse sickness was very prevalent among the columns, the district in which they were moving being notoriously infective. Mr. F. B. Gresham, of Newark, who was C.V.S., with Shekleton's, and afterwards, Rawlinson's columns, tells me that during March Shekleton's column lost 32 animals from this disease. He has also been good enough to give me the general return of sick for that month, which is here produced as evidence of this class of wear and tear.

## SHEKLETON'S COLUMN.

Strength in horses	1499	} Remounts received during	
" mules	470		the month 534
Deaths	-	-	60
Destruction	-	-	100
Abandoned	-	-	4
Loss by captures	-	-	15
			179

The monthly dead loss was 9%, of which only a trifle (four animals) occurred in action. In addition there was at the end of the month a sick list of about 140 animals, made up principally of sore backs (87 cases), lameness from contusions (25 cases), and exhaustion (28 cases).

Mr. Gresham has been able to furnish me with three months' wear and tear in the 2nd Regiment of M.I. which belonged to this column.

	Original strength	Died and destroyed	Missing
Feb. 1 to Mar. 8	355 horses	32	5
Mar. 9 May 3	465 "	75	1
May 4 May 31	489 "	49	1

\* "Times History," Vol. v., p. 218.



In three months this regiment suffered a dead loss of 160 horses, or nearly 11½% a month, this is quite exclusive of the temporary loss due to sickness. Horse sickness and inexperience of horse management were responsible for nearly all these losses.

We are now in the middle of May. Everything pointed to a southerly movement of De la Rey, and three columns converged on Wolmanstaad. The intelligence was defective in the sense that no concentration of Republican forces was occurring, though De la Rey had gone south in order to cross into the Free State and meet Steyn and De Wet, p.159. He left behind him General Kemp, who was situated close to Dixon's camp at Naauwpoort (a few miles south of Olifant's Nek). Kemp took advantage, while Dixon was out clearing farms, to attack him at *Vlakfontein* on 29th May. The attack was made under the shelter of a veldt fire. "Out of the very flames there suddenly burst a torrent of 500 Boers, some firing from horseback, others leading their ponies and firing as they ran.\*" Dixon's mounted men were mainly recruits; before this advance they gave way, but after desperate fighting and heavy losses among the troops the position and guns were saved by the infantry. The loss of horses is unknown: all the artillery animals were killed, and this prevented the enemy removing the captured guns.† Five columns rushed to avenge this attack, but Kemp's forces dissolved. The veterinary officer present at *Vlakfontein* was C.V.S. R. G. Anderson (now Captain A.V.C., T.F.), who was attached to the Scottish Horse. By vigorous measures he was able to save a stampede of the transport, which, parked a short distance from the scene of attack, was suddenly seized with panic and bolted when the shells dropped amongst it.

#### CAPE COLONY.

##### OPERATIONS, MARCH-MAY, 1901.

The expulsion of De Wet from Cape Colony still left Kritzingen to be dealt with. He had been followed as far as the Sneeuw Mountains, which lie midway between Middleburg and Graaf Reinet, but the chase after De Wet had withdrawn all but two of the columns following him (see p.154), those of Gorringer and Herbert, and these held on to his tortuous course. This was devoid of any special objective excepting that of travelling in the line of least resistance, and doing what damage he could to the railway. He was back in the Sneeuw Mountains on 25th February, rode north and disappeared. On 5th March he was found by Gorringer to have travelled south, and was located at Pearston, north-west of Somerset East, towards which he was driven, De Lisle being railed to cut him off. It failed, for Kritzingen crossed the line, and going north through Adelaide got into the Winter Berg

Mountains which he traversed, and pointing in the direction of Burghersdorp crossed the Bamboes Mountains, passed over another line of railway, just west of Stormberg Junction, threatened Burghersdorp, destroyed a British post, captured a supply train, and was at Knaapdar a few miles south of Bethulie on the Orange River at the end of March. During the latter part of this chase the columns of Henniker, Codrington and Crabbe joined in. At Knaapdar he was lost; for 250 miles he had been followed, during which time two mountain ranges had been crossed. It was not until 11th April he was heard of again, when he was found south of Middleburg, where he had united with Fouché, and was chased by Crewe\* who had come from C. Knox. Kritzingen, followed by Crewe, went north, crossed the Orange River, and got into the Free State.† Meanwhile, Scheepers had been leading Grenfell and Parsons an equally fruitless chase in the district lying between Aberdeen and Willowmore.

Scheepers, with whom at this time was Fouché, was chased by Parsons, Scobell and Colenbrander through the districts of Aberdeen, Graaf Reinet, Jansenville, and Somerset East. On 6th there was a fight at Aberdeen with Parsons, on 15th one with Scobell, who, by a 45-mile march prevented the enemy from attacking Jansenville. Malan now joined Scheepers and Fouché, and Scobell attacked and broke up the Commandos on 20th March, causing them heavy loss. Scheepers and Malan hurried to the Camdeboo Mountains, west of Graaf Reinet, followed by Scobell; Fouché made for Pearston followed by Warden, from whom he escaped and joined Kritzingen south of Middleburg, as related above. Scheepers and Malan were not again heard of until the end of April, when they were found in the vicinity of Pearston and driven north by Scobell and Henniker. Lukin, who came out of Cradock, attacked them on the flank, but they doubled back, were chased by Henneker and separated, Malan going north by Cradock, Scheepers making south for Somerset. The latter on his way was attacked by Henneker who had come back by rail, and after being roughly handled escaped in a snowstorm on 12th May, and made for the Camdeboo. Malan meanwhile was chased by Scobell to the west of Cradock; there was a fight on 2nd of May and another on 20th, Malan being driven north in the direction of Maraisburg; here he was saved by meeting the returning Kritzingen, who had re-crossed the Orange River and was making south.

Kritzingen's return across the Orange River on 17th May, with re-inforcements and remounts, was effected in the face of six columns on the south bank and three on the north. He was joined by Fouché who was awaiting him in the Jamestown district. The latter had slipped past Gorringer and

\* Gorringer was refitting. Codrington's column was broken up.

† It can hardly be said he was driven across the Orange River. His visit was voluntary, and connected with recruits and remounts.

\* "Times History," Vol. v., p. 282.

† The last man left uninjured at the guns was the Farrier-Sergeant of the Battery.

Crewe, who now endeavoured to prevent their junction. The two Commandos left the Zuur Berg Mountains, north of Stainsburg, from here they crossed the line south in spite of the 1500 men sent to block them; they then picked up Malan, and the three Commandos marched south. Kritzinger did not get far; marching rapidly Gorringer got to the west of him and Scobell to the east, and he turned east to the Bamboes Mountains.

Since the middle of April Haig had been in charge of the operations in the midland district, it was he who was now chasing Kritzinger with all the columns which could be spared. In the Bamboes Berg Kritzinger was pressed and harassed to such an extent that, leaving Malan behind, he broke away east over the railway in the direction of Jamestown, it was now 29th May. Scobell, strengthened by Lukin, and the 9th Lancers sent by rail from the Free State, closed the eastern outlet from Jamestown; Gorringer, together with a column under Murray from the Orange River near Aliwal, spread out around the north; Crabbe, Wyndham, and Monro (also from the Free State) closed in the west. It was the biggest combination of columns since the De Wet chase of the previous February. Eight columns containing 4600 horses formed one large circle around the invader. He charged through, and on 2nd of June raided and captured Jamestown, where he replenished ammunition, supplies, and obtained remounts. Pursued by Scobell and Gorringer to the north-east, he was surprised and severely handled by Scobell on 6th of June, and escaped on foot; on 7th June Gorringer, together with a column from Aliwal under White (648 horses) attacked him, but he again escaped. Malan, whom he had left behind in the Bamboes Berg, also escaped, but Wyndham, now close to Steynberg, captured some prisoners.

An attempt has been made above to give some notion of the severity of these operations on horses and the numbers employed. A hundred miles of marching are very soon covered in this class of work, even when the actual area of operations, as in the last recorded, is relatively small. Kritzinger's circular course from the Orange River to where he disappeared was not much more than a hundred miles, but that does not represent the distance travelled by the columns which chased him throughout.

The political, as apart from the military, importance of all operations in Cape Colony was enormous, and out of all proportion to the material damage a few wandering bands might inflict. To realise this, it may be mentioned that in Cape Colony alone there were at this time no less than nearly 50,000 troops, regular and irregular, under arms for the repulsion of two or three determined men with a following only numbering hundreds. That being so, it can readily be understood that the capture of these bands could only be effected by the mounted columns; the sparing of horses could meet with no consideration. Night and day, in all weathers, mounted columns travelled over stoney karoo, up

the rugged precipitous sides of mountain 4000 to 5000 feet above sea level, then hustled into the train, bundled out in a few hours, or perhaps two or three days later, saddled up, and once more marching in search of their elusive enemy who probably by now was miles away in an opposite direction.

It is impossible to present any connected account of these operations in Cape Colony, which for eighteen months harassed both the military and political authorities. The "Official History," in referring to this fact, describes the operations as kaleidoscopic. Commandos would combine and threaten, dissolve and scatter to various points of the compass to then unite elsewhere. They had no objective excepting that of making themselves unpleasant, so that military instinct could not divine their next move; there was no scheme, especially at this time, in the Midland district. Later, when a Transvaal General invaded the Colony, Cape Town was the objective, but Kritzinger, Fouché, Scheepers and Malan were satisfied to roam through districts in the heart of the Colony, and in the centre of disloyalty, and succeeded in keeping more than an Army Corps under arms with enormous waste of horses. How that wastage was brought about the above brief account has attempted to explain.

### CAPE COLONY.

#### OPERATIONS IN THE NORTH-WEST,

APRIL-OCTOBER, 1901.

In April, a column under Jeurdwine, 500 strong, had left De Aar for the north-west of the Colony, the old focus of infection, p. 61. On 12th May it was at Brandvlei. In June it had reached Kat Kop, 230 miles due west of De Aar, having patrolled the intervening districts which were in a condition of smouldering rebellion, shadowed the whole way by a force of the enemy under Commandant Conroy. Definite shape was being given to the disloyalty of this distant north-west by one of Scheeper's lieutenants, by name Maritz, a man of remarkable ability and genius for organisation. At present Maritz avoided Jeurdwine as he was not ready, but he marched about the country travelling immense distances. His movements gave Jeurdwine some severe marching in this outlying district of Calvinia, over mountains and dreary sandy wastes which proved most exhausting to his transport. On 8th June Jeurdwine made a forced march of 54 miles in 24 hours against Maritz who disappeared, and after further marching he was obliged to go to Calvinia to rest and refit. In two days he was out again to relieve a post 48 miles west of Calvinia, marching all night through heavy rain he covered the distance in 24 hours and relieved the place. Hearing Maritz was still to the west of him he followed and got in touch on 25th June, but Maritz marched away taking his Burghers on a 200-mile ride; Jeurdwine followed him for days, Maritz travelling from time to time in opposite directions in order to mystify his pursuer.

Jeudwine followed him up to 8th July, on which date he made the almost incredible march of 68 miles, when he handed over the column to Capper. Jeudwine's marches were attended with but little fighting and have not been sufficiently recognised. In 54 days he had marched 1150 miles, an average of over 21 miles a day, "in the face of incredible difficulties of supply, transport and conditions of road." \*

During July Maritz remained in the inaccessible regions of Sutherland. Capper could barely obtain a sight of his bands, which hovered over precipices and heights inaccessible to guns and transport. The position of Maritz at Sutherland, close to the railway and near to Cape Town, was part of a programme. He was waiting for Smuts from the Transvaal. In August he disappeared on one of his long marches, and was next heard of at Van Ryn's Dorp, 40 miles north of Clanwilliam, which he captured on 7th and replenished his stores, ammunition and horses. Capper followed him thither but was late; he then went to Calvinia, and hearing Maritz was in his old haunt at Brandvlei, west of the Zak River, 80 miles north of Calvinia, he adopted the night marching and day resting tactics, found so useful elsewhere, and surrounded the laager, but the enemy galloped through. Capper now did over a 200-mile march to Ceres on the Cape Town railway (65 miles north east of Cape Town), where he arrived on 15th September; until the 15th October his force was employed barring the entrance to the capital against the inroad of Maritz. This leader had largely recruited, and was virtual ruler over the north-western districts; he was now ready to carry out his part of the invasion programme with Smuts, which constituted the entry into Cape Town, but these events will be separately considered. We have been compelled in the interests of the narrative to carry these operations in the dreary desert districts of the north-west, to a point in advance of the general operations.

#### TRANSCAAL.

##### OPERATIONS NORTHERN TRANSCAAL,

MARCH—APRIL, 1901.

While the drive across the Eastern Transvaal, recorded at p. 156, was coming to an end, operations against the north and north-eastern portions, in the area enclosed on the west by the Pietersburg line, and on the south by that to Komati Poort, were being projected. The irregular square over which these operations were conducted had sides each of about 140 miles, and was divided down its centre by a river, the Olifants, which separates the flat bush country on the west from the mountainous area on the east. Hitherto we have seen very little of either of these countries. In Paget's operations through the bush veldt north to Nylstroom in August, 1900, p. 95, the fighting was nearly all in the neighbourhood

of the railway. The only glimpse of the mountainous area was that afforded by Buller's operations to Lydenburg, p. 99. It was now intended to again advance along the Nylstroom line and beyond, and seize Pietersburg, a place which had never yet been visited during the war, and was known to be the seat of great activity. It will be remembered that the occupation of Pietersburg from the north was the objective of the Rhodesian Field Force, and we have seen that it fell through. Pietersburg to Middleburg (Transvaal) form the northern and southern points of the present operations; the eastern and western being indicated by Lydenburg and Nylstroom respectively. From a veterinary point the two areas of bush and mountain divided by the Olifants River are important, as one is a deadly place for horse-sickness during this time of the year, while the other is healthy, though its stupendous mountain ranges of extraordinary grandeur offer a dreadful barrier to animals engaged in military operations.

The operations now undertaken had two objects, the capture of the Transvaal Government, which lived in the mountainous region, together with Viljoen who operated from there against the railway, and the seizure of the enemy's base at Pietersburg. Columns were to be employed operating north from the Delagoa line, driving the Government and the Commandos in the direction of Pietersburg; meanwhile, Pietersburg having been captured was to be used as a base for blocking the drifts over the Olifants River, and so denying escape in a westerly direction to the quarry, which it was hoped would then be compelled to keep moving north where troops would be ready to receive them.

The first step was to be taken by the indefatigable Plumer, whom we last saw with his column in the vicinity of Brandfort on 10th March, after the big chase of De Wet (p. 156). On the 22nd of that month his column was in the train for Pretoria, and on 26th March he left there for Pietersburg. Great economy of animal life was practised by him in utilising the railway for his transport and artillery, and so sparing his animals through the sandy bush country about to be traversed. In spite of the damaged condition of the line two construction trains repaired it as fast as his troops were able to move, while a supply train kept him fed. Pietersburg was occupied on 8th April, and the commando of Beyers disappeared to the East. From Pietersburg he marched S.E. for the Olifants River, in doing so crossing the Strydpoort range of mountains, which separated him from it, through a pass in a solid granite wall only fifty feet wide. There were thirteen drifts to hold on the Olifant's River over a distance of fifty miles, and he was in occupation of them by 10th April. Meanwhile the driving columns from the east were being placed in position. Six were employed working from Middleburg, Belfast, and Lydenburg, the whole under the command of Sir Bindon Blood, who had been brought from India owing to his

\* "Official History," Vol. iv., p. 354.

knowledge of mountain warfare. The six columns had the following strength :

Lydenburg, Lt.-Col. Park	200 horses.
" Maj.-Gen. F. W. Kitchener	550 "
Witklip, Lt.-Col. Douglas	330 "
Belfast, Lt.-Col. Pulteney	750 "
Middleburg, Lt.-Col. Benson	600 "
" Maj.-Gen. Beatson	600 "
	<hr/> 3150 "

The number of mules is not stated, but as there were 6700 fighting men there would be about 2500 mules. The general results of these operations may be briefly stated—both the Government and Viljoen escaped. The latter being in such difficulties that he had to abandon his guns and burn his transport. The Government escaped south before a shot was fired; it crossed the line a little east of Middleburg without difficulty and proceeded to Ermelo. Viljoen awaited results in the vicinity of Roos Senekal, and made no move until 19th April. On 20th four columns were near him, two being within eight miles, yet he eluded both and crossed the Olifants River at a section which had been told off to Beatson, escaping on 22nd April by an unguarded drift, after a 19 hours march. He then deceived his enemy by an intentional march in the wrong direction, finally going south, and incredible as it may appear, camped for several days a few miles north of the line at Balmoral, and from here attacked Beatson in the rear. In the first days of May he crossed the line and joined the Government at Ermelo. These three weeks of activity had produced 55,000 head of stock, munitions of war, and many prisoners and surrenders, but the important persons had escaped.

The marching done in the mountainous districts was very trying. F. W. Kitchener covered 150 miles in the worst part of the country, but the force under Plumer had probably the most trying experience owing to the unhealthy nature of the area in which they were operating. When he arrived at Pretoria on 22nd March, before proceeding to Pietersburg, a new contingent, the 6th New Zealand Mounted Rifles, joined him. They had only arrived on the previous day after a voyage of 48 days from Auckland to East London, and a four days journey to Pretoria by rail.

They were absolutely unfit to take the field; of the 580 horses embarked at Auckland 16 died on the voyage, 57 were unable to leave East London owing to injuries, 13 died in the train on the way to Pretoria, 3 died in camp on arrival there, and 5 were sent to hospital. During the march to Pietersburg they naturally suffered from exhaustion, laminitis, and sore backs, due to the enormous kit carried; catarrh and strangles also appeared. The first case of "horse-sickness" occurred on 4th April, from that time onward cases were frequent. On 12th April the Queensland Imperial Bushmen joined Plumer; they also had just landed in the country and were entrained immediately and sent by rail to Pietersburg; a large number were unshod and many suffering from ship injuries and

pneumonia. About this time cases of glanders were detected among the New Zealand horses. Next to horse-sickness the most formidable trouble was veldt sores and quitor due to the thick thorny bush country in which the force was operating. Twenty per cent. of the entire force was rendered unserviceable from this cause, and many had to be destroyed owing to septic infection.

During Plumer's operations a mobile veterinary hospital was formed at Pienaar's River which received the earlier cases, and a little later a Field Veterinary Hospital was opened at Pietersburg, to which many animals were sent from the columns on the Olifants; the distance, however, was 40 miles, which was against the quitor cases.

The following table shows the wastage in General Plumer's Force, which was of course enormously increased by the two regiments previously mentioned being absolutely unfit to take the field.

Strength on leaving Pretoria	1250 horses
" " " " " " " "	1050 mules
Died or destroyed on march to Pietersburg	49 "
Sent to F.V.H. at Pienaar's River	27 "
Strength on arriving at Pietersburg	2124 animals
Strength of horses on leaving Pietersburg for operations on Oliphant's River, 14th April (Remounts had been received since leaving Pretoria)	1732
Died of Horse Sickness	323
Died, destroyed from other causes	239
Sent to F.V.H., Pietersburg	126
Strength on 6th May on arriving at Silverton, a few miles east of Pretoria (of which 142 are unfit)	893
Loss	839 horses.
Strength of mules on leaving Pietersburg	1145
Casualties on march to Silverton	43
Strength on arrival	1102

We have here a record of 323 cases of horse sickness occurring in a strength of 1732 horses in the space of 22 days (18<sup>th</sup>), as a matter of fact no horse died from the disease after 1st of May, so that there were 323 deaths in 17 days.

The veterinary officers with Plumer's Column were Lieuts. (now Major) W. D. Smith, A.V.D., McLeod, 4th Q.I.B., Tucker 5th Q.I.B., and C.V.S. Glasse. I am indebted to Major Smith for the above statistics.

#### *EASTERN TRANSVAAL.*

##### *OPERATIONS, MAY—AUGUST, 1901.*

In the operations undertaken during the month of May the underlying scheme is not very clear, excepting that from north and south, *i.e.* from the Delagoa and Natal lines, columns were to advance into the interior of the Eastern Transvaal and do all the damage they could. Six columns under Blood started from the northern and three from the southern railway on 13th May, a total of 9,800 horses, and converged on Ermelo, but with no results. The columns then worked independently, Plumer taking in Bethel and then going to Piet

Relief. It was while he was sending in a convoy from Bethel to Standerton that an attack was made on it at *Mooifontein* on 25th May. Harrassed for days it was finally set upon front and rear, and the grass lighted; under the smoke from this charges were made. The only thing which distinguished *Mooifontein* from scores and scores of similar convoy attacks was the heavy losses. This class of work is most severe on transport animals.

An important duty falling to these columns was that of chasing the Transvaal Government; this went on continually for a fortnight, during which time the Government found itself running first into one and then into another column, but always evading capture, and even succeeding in meeting the Free State Government near Standerton. At this meeting the momentous decision was taken of prolonging the war, De la Rey undertaking to invade Cape Colony, the command being given to General Smuts.

The news of *Vlakfontein*, p. 163, took Allenby from the Eastern to the Western Transvaal. Beatson, while marching from the Delagoa railway to Bethel, had a portion of his column surprised at *Wilmansrust* on 12th June and was badly beaten. Three hundred and fifty horses were lost.\* This reverse caused all the columns in the Eastern Command to assemble in the Bethel district, and four of these, including a new Cavalry Brigade under Babington, demonstrated from Bethel as far as the vicinity of Johannesburg, but did no good. During this time Viljoen recrossed the line, and coming in contact with Benson suffered damage.

One of the characteristics of a war of this kind is the rapid change which a few hours may bring about. In a few days the Eastern Transvaal, so recently the scene of excitement, and the hunting ground of several columns, was almost wholly deserted, they having been sent to other areas which had suddenly become the scene of renewed activity. Blood, with his column, passed in July across the line into the N.E. Transvaal, Allenby was called off in June. Six other columns, including that of Plumer, left in July. The Eastern Transvaal was quiet, but the commandos were still there, so was the Government; both required a rest, so went into hiding. One column only remained, that of Benson, whose method of operations caused the maximum of inconvenience and loss to the enemy. With an excellent intelligence system under a local officer, Colonel Wools-Sampson, he substituted night for day raids. Night work for horses is most exhausting, and a high degree of discipline is required to afford them protection from the irregularities which occur in the dark, even under skilful control. As an example of this we may take the apparently

simple subject of "saddling up," an operation never easy even in daylight with a heavy kit, but in the dark it requires the greatest care to ensure that matters are satisfactory. The loose end of a strap is a prolific source of injury, to say nothing of a portion of the impedimenta resting on the spine. Benson, besides being a very fine soldier was an excellent horsemaster; he had been trained in the best school of horsemanship in the Army, *i.e.* in the Artillery. He knew what horses required, and none valued more than he the attention to detail, which is the essence of horse management. With officers and men trained in the care and management of horses, the first step had been taken to put into operation those brilliant military qualifications which unfortunately were so soon to be lost to the Army. Benson's column became the scare of the Eastern Transvaal. Long night marches of thirty and forty miles, and an attack at dawn were his chief weapons, and during the two months of July and August he kept the Republican Forces in a condition of anxious anticipation. Meanwhile Botha, who commanded in this area, though not in evidence, was not idle; he was maturing a scheme which kept him occupied elsewhere, and no reprisals on Benson were at present attempted. His scheme was the invasion of Natal, and formed part of the general programme for the invasion of British Territory, of which Smuts, whom we have yet to see, had already carried out his share in Cape Colony. Ermelo was Botha's point of concentration for this, the second Natal raid, and thither at the end of August the commandos collected.

#### NORTH AND NORTH-EAST TRANSVAAL.

JULY-AUGUST, 1901.

In the north-east Transvaal the columns of Blood and Kitchener worked hard for the next two months with variable success, but the country wore out men and horses. Muller had temporarily taken the place of Viljoen, and gave a good deal of trouble. As usual when tired, the Commandos went into hiding. The columns then returned to their station, or frequently, as we have seen, were sent to some more pressing point. In the northern Transvaal columns under Grenfell, Colenbrander, Wilson and McMicking scoured the district even as far as 60 miles north of Pietersburg. Beyers, who was back in his district, gave them a great deal of work, but for the present there was no indication of his bringing his Commando together.

During the operations under General Blood in the eastern and North-eastern Transvaal further development for the care of the sick in the Field took place. A mobile hospital accompanied his columns and received the sick which were no longer under regimental care. These were driven quietly along in mobs of about 50; three natives under a white superintendent were found sufficient for this number. The animals grazed as they travelled.

\* In this affair, Lieut. Sherlock, Veterinary Officer, Victorian Mounted Rifles, distinguished himself and was mentioned in despatches in the following terms: "At *Wilmansrust* when the doctor was killed he took charge of 40 wounded, and by his skill and attention much alleviated suffering and danger. An excellent officer in his own Department."—*London Gazette*, 20th August, 1901.

The hospital was furnished with transport and was under the care of Lieut. Todd. It moved daily with the supply column, so that the difficulty of feeding animals was lessened. Finally it took up a central position at Carolina, and later at Wonderfontein, receiving not only the sick but the animals captured by columns. The sick were, from time to time, evacuated to the base hospital on the line, which was stationed at Middleburg. The reception of captured stock was disadvantageous from a veterinary point. Possible friction with the Remount Department was prevented by the Veterinary Officer in charge being made Remount Officer for the Columns.

For the northern operations the sick were sent into the hospital formed at Pietersburg.

#### WESTERN TRANSVAAL.

JULY—AUGUST, 1901.

The month of July saw the introduction into the Western Transvaal of a scheme of offence which was destined to assume vast proportions. The readers of this history must have been struck by the rapidity with which an area swept by columns was re-occupied by the enemy, even before the sweeping operations had been brought to a close. Lord Kitchener determined to create artificial obstructions, and for this purpose wire fencing and blockhouses were introduced. These had for some time existed on the railway, at first for the protection of bridges, but latterly for the whole length of the line of rail in exposed districts. It was now part of his scheme to enclose the country in a similar manner, and for the protection of Johannesburg an area of the Western Transvaal was fenced in and defended by the miniature forts. In this way the question of supply was simplified and the risk of capture of convoys and consequent loss of animals greatly reduced. Eighty square miles of the Western Transvaal around the heart of the State were protected by the middle of September.

The military operations in the Western Transvaal, which for two months had not been active, were marked towards the end of August by six columns, employing 6,500 horses, moving against Kemp in the Eastern part of the Zwaartruggen Mountains west of the Magaliesberg. He, however, escaped further west, and in a day or two as Methuen, whose column took part in the above movement, was returning to Zeerust, Kemp attacked him in the valley of the Marico River and caused him heavy loss.

#### CAPE COLONY.

JUNE—AUGUST, 1901.

The enemy without transport or supplies could not have lived a week in Cape Colony had it not been for their friends and sympathisers, who were legion. Nearly the whole Dutch population was disloyal. Among the other absolute essentials to

the existence of a Commando were horses, and these they furnished.

We have seen that in December, 1900, orders were issued for all animals in the affected districts to be brought into military posts, excepting those which could be protected. The result of this order was to produce some 25,000 horses, the majority of which were termed "protected stock," and have been already referred to p. 133. This did not represent by any means the horse population of the districts; nothing was easier than to hide large numbers of animals from the sight of patrols, and these were used by the enemy.

In April an order was issued that all remounts required by the columns operating in the Cape Colony should be obtained from local supply. To meet this several remount depots were opened, the largest being at Cradock, the centre of a horse-breeding district. This tapped a source of supply which had hitherto been largely neglected, for reasons discussed at p. 132. Nevertheless, the fact remains that up to the end of the war horses suitable for Commando were always at the disposal of the enemy. It was this factor which enabled the Republican Forces to roam about the Colony with comparative impunity, as may have been judged from what has already been related of their movements.

Early in June, General French was appointed in command of all the troops operating in the Cape. At this time there were nine mobile columns, an aggregate of 5800 horses. Among these were three regiments of cavalry, 9th, 16th and 17th Lancers, Cape Police, Cape Mounted Rifles, and about 1000 Yeomanry, the latter being very backward in training. \* Gorrings's Defence Force was broken up and newly constituted. Scobell, Crabbe, Crewe, and Monro remained in the Field, Henniker was succeeded by B. Doran, and Wyndham and Lund came on as Column Commanders. The headquarters of General French was established at Middelburg (Cape), and Major Philips, A.V.D., was appointed to his staff as Senior Veterinary Officer.

Kritzinger, who was last seen on 7th June, was located on the 14th trekking South through the Bamboes Mountains, and was followed by Monro and Crabbe in the direction of Tarkastad. Here he was engaged and suffered heavy loss, but escaped towards Cradock, where he captured a patrol on 20th June, which entailed a loss of 60 horses. B. Doran, Scobell, and Crewe endeavoured to close him within the Tandjes Berg Mountains, lying between Cradock and Graaf Reinet, but he escaped north, while Commandant Van Reenen, who was with him, went south. A chase of 200 miles was now carried out by Crabbe, but the commando reached the Bamboes Berg in safety by the end of June. Crabbe had now to refit, and Haig was detailed to look after Van Reenen. Malan was heard of early in June as being in the mountains west of Maraisburg; he moved into those

\* "Times History," Vol. v., p. 312.



south of Middelburg, and was followed by Crewe, by whom he was chased from one point to another of this extremely difficult country. On 23rd June it was found that he had gone north-west to Richmond; this he attacked and inflicted severe loss on the garrison after many hours fighting, but the arrival of Lund on 26th June drove him north-east to Hanover, where he made a stand against Lund, was defeated with loss, and he and his band dispersed.

Scheepers, whose domicile was in the inaccessible mountains to the west of Graaf Reinet, kept B. Doran engaged; in spite of being watched he attacked Willowmore, 70 miles away, on June 1. French determined to surround his stronghold by means of columns, and to send in another to hunt him out. On July 12 the troops were in position, and Scobell had already scored some success, when a gap occurred in the ring and Scheepers broke out on 15th. A party belonging to his Commando had a day or two previously burnt the railway station at Aberdeen, thirty miles south-east. When Scheepers escaped, Malan, recently at Hanover, joined him; they were followed north by Wyndham, who on 19th was still close behind; on 20th Wyndham had to halt for his transport. Scheepers then went west to the Cape Railway, and on the same day attacked and burnt a troop train thirty miles north of Beaufort West, inflicting considerable loss. He then crossed the line and went out into the west, a region where his presence was least desired. A partial recompense for his escape was the scattering of a band under Latigan (a commander who had returned with Kritzingen) by Scobell on the night of the 21st, resulting in many captures including 105 horses.

Kritzingen, who had escaped north from the Tandjes Berg in June did not proceed far, and was located by Crabbe in the middle of July. The latter, while manœuvring to drive Kritzingen south, was ambushed on 21st July at *Jackalsfontein*, east of Witmoss Station (30 miles south of Cradock), and lost 200 horses. Kritzingen was now joined by Theron who had come from the Free State. Fouché remained in the north-east near the Transkei, where he had been obtaining horses and recruits. With him were Myburgh and Erasmus (two more Commandants lately brought across the Orange River by Kritzingen); they had previously been chased by Wyndham in the Molteno district, and now went north to Fouché whom they joined on 7th July. Two mobile columns existed in the north-east, one under Monro at Dordrecht, another under Moore at Aliwal North. Munro accordingly followed Myburgh and Erasmus northwards, and Moore came out of Aliwal to deal with Fouché. On 14th Moore was seriously engaged with Fouché north-east of Jamestown; the action lasted all day, and Moore retired. On 19th, having been re-inforced, he followed the enemy west, and coming into contact there was fighting on 20th and 26th; Fouché finally disappeared over the Orange River on 28th. Myburgh and Erasmus were joined by a

fresh Commando from the Free State, and were attacked by Gorrington on 30th July north of Dordrecht. Gorrington chased them for a week, surrounded the body near Steynsburg and did considerable damage, but the Commando broke through.

These various Commandos had had some experience of the hustling principle which had been inaugurated, and French now considered they were suitably placed for driving tactics to be established. His force was contained within a vast square of the midland district, of which the railway forms three sides. With his eight columns placed at intervals, on a line running from Victoria West—Middelburg—Sterkstroom (from point to point a distance of nearly 200 miles), he marched them south on 30th July over a narrow front so as to enable the various Commandos to get between and behind them. The distance south was 70 miles; it necessitated crossing the mountain range which, under various names, runs transversely across the Cape from Beaufort West to Stutterheim. When south of this range on 3rd August his columns were dispersed from Beaufort West, through Aberdeen to Witmoss and on to Seymour, points 240 miles apart. They then turned about, opened out, and on 6th facing north drove for 100 miles towards the railway connecting De Aar with Stormberg. Scheepers at once broke out south near Aberdeen, and was followed by Alexander and Atherton, but seven Commandos were left between the driving line and the railway.\* There were many fights during these operations. Scobell engaged Lotter and C. J. Botha, Crabbe and Kavanagh were busy with Kritzingen, all on the eastern end of the advancing line. Doran and Wyndham at the western end were dealing with Theron and Smit. The former escaped south, Smit was pressed north, and just west of Middelburg was joined by Lotter and Botha, behind whom was Scobell and Hunter-Weston (a new column commander). B. Doran coming up joined in the pressure and forced the three bodies north against the railway. Smit, however, escaped west, but Lotter and Botha were pressed in to the railway by Hunter-Weston, Scobell, and Kavanagh. Some days prior to this Kritzingen had also found himself against the railway, which was now not only blockhoused but patrolled by armoured trains. These he faced, broke across the line on 10th August, went to Steynsburg, and reached the Zuurberg mountains, where he found the two commandos of Van Reenen and Wessels. Gorrington and Crabbe were in hot pursuit, and driving the three bodies north compelled them after a 50-mile ride to cross the Orange River, inflicting severe loss on Kritzingen on 15th August. Lotter and

\* No sweeping operations could take place until the railway was blockhoused and wired in. This hitherto had not been necessary on the Cape lines. It seems almost beyond belief that a blockhoused barrier, 240 miles in length, was erected in fifteen days. See "Times History," Vol. v., p. 314.

Botha hemmed against the railway boldly attacked it on 16th August but failed; their capture appeared certain. They turned on the converging columns, discovered a gap between them, rushed through in the dark and escaped south to the stronghold in the Tandjes Berg 50 miles away. Followed by Scobell and Kavanagh they were engaged in these mountains, separated and broke away. Scobell with B. Doran, who had just come up, chased Botha to the east, while Lotter remained in the Tandjes Berg, there being no available force to deal with him, Kavanagh having been withdrawn in consequence of news received that Theron was travelling hard from the south. Scobell and Doran wore down C. J. Botha's commando but did not capture the leader. On 30th August they were refitting at Cradock. Smit when he went west made for Britstown followed by Lund, Bentineck, and Wyndham. Wyndham pursued him west of the Cape Town line for over 300 miles during August and the first days of September, finally losing him south of Sutherland.

Scheepers we have seen went south, Alexander and Atherton being in pursuit. He was located south of Uniondale in the middle of August. Alexander attacked him and was driven back with relatively heavy loss.\* Atherton joined in and followed Scheepers, who going west in the direction of Cape Town caused grave anxiety for the stores collected at Swellendam and the remounts at Worcester. Nor was Scheepers now the sole anxiety, Theron reappeared, he was going south from Prince Albert. To deal with him another column had to be sent, and Kavanagh went from Graaf Reinet to Willowmore, and on 2nd September moved against Theron, who was near Oudtshorn.

It was in the early days of September that the first real success was obtained in this exhausting campaign in Cape Colony which had now lasted eight months. Lotter we last saw in the Tandjes Berg. Here on 1st September Scobell made arrangements for dealing with him. It took four days to execute these in such a way as to deceive Lotter. He was in fancied security in a farmhouse near the village of Petersburg, situated in the Tandjes Berg mountains, due east of Graaf Reinet. The farm was rushed just after midnight on 5th September and the whole commando and leader captured after severe loss. Two hundred of his horses were also captured.

The total number of horses engaged in the foregoing operations was 10,500, distributed over eighty-seven columns. Their losses are unknown, but were very severe; this may already have been gathered from the above record of the exhausting work they were called upon to perform. Numerous rest camps were established by General French to which horses were sent before being utterly done up; these were a sound economical measure.

\* It was during this attack that Lieut. (now Major) Carr, A.V.C., was severely wounded and captured.

## *SOUTH-EAST TRANSVAAL.*

### *BOTHA'S MARCH UPON NATAL,*

SEPTEMBER, 1901.

#### *GOUGH'S DISASTER—FORTS ITALA AND PROSPECT.*

It was on 2nd September that General Botha set out from the neighbourhood of Ermelo (p.167) for Piet Retief. His projected invasion of Natal had not been kept secret, it was talked of in Natal itself, and probably regarded as "bluff." Nevertheless, it was considered advisable to strengthen the scattered forces in the area of hostilities by bringing in columns from without; some of these arrived about the middle of August. Pulteney's (late Beatson's) Column from Standerton and the Johannesburg Mounted Rifles under H. K. Stewart went to Utrecht and Dundee respectively, and raiding into the district of Vryheid found no enemy but heard many rumours. Stewart remained at Dundee 8th September, and Colville from Standerton marched north-west in the direction of Amsterdam, thus crossing the road which Botha had already taken south. The latter's progress was delayed by the heavy rains which had set in. Wheeled transport in this extremely difficult country was impossible if speed meant anything, so that Botha's supplies were carried by pack animals. Meanwhile information of his movements was obtained very slowly, but further troops concentrated at Newcastle and South; Gough's Mounted Infantry came from Kroonstad in the Orange Free State, arriving at Dundee on 13th September; Garrett's column from the same State on 6th September and proceeded to Wakkerstroom. In due course Allenby from Pretoria, I. Hamilton from Klerksdorp, and Speirs from Kroonstad followed; Rundle closed the Drakensberg to the west, and Elliot with his strong Division lay on the far side under their slopes, ready to act on either side of the mountain range. Practically all these movements were by rail, a saving in one sense to the animals concerned, though train injuries were both frequent and serious.

Botha was still going south, but the weather had told on his horses which were weak through want of grass which had not yet grown, so that he lost many on the way. Nothing definite was known of his movements until the 14th September, and it was then ascertained that he was marching on Utrecht. Pulteney at Wakkerstroom was the nearest to this point, 28 miles away; the weather was atrocious for wheeled transport, and it took three days to cover 14 miles, while Botha, marching with pack transport, was putting in 11 miles daily. By the 17th he was at Blood River Poort, a few miles east of Vryheid, and within 7 or 8 miles of the nearest point on the Natal frontier, which is here most irregular in configuration.

Gough and Stewart, originally at Dundee, were, on 16th September, at De Jager's Drift across the Buffalo River, on the Dundee-Vryheid road, along which a convoy was expected from Vryheid. To

ensure its safety in the present unsettled state both forces on 17th proceeded along the road, and finally arrived at Blood River Poort and saw a party of the enemy. These off-saddled and turned their horses out to graze, and Gough, determining to benefit by the opportunity thus afforded, swooped down on the incautious party, directing Stewart, a mile or so behind, to follow. As he advanced with his force of three companies of Mounted Infantry and two guns, he was charged by two bodies of the enemy who had been unobserved; the first charge crumpled up his line from right to left, the second one struck him in front. In twenty minutes the whole of the survivors were prisoners, and forty-four were killed or wounded. All the horses, 250 in number, were lost, and the two guns.\* Stewart behind could do no more than save the transport and hold the drift at De Jagers leading to Dundee. The effect of Gough's obliteration was to produce the "sensation" which Botha in a letter previously written to Viljoen anticipated. Clements came from Standerton and took over the forces of Stewart; Pulteney and I. Hamilton then concentrated at De Jager's Drift. Bruce Hamilton was brought from the Free State to direct the columns of Speirs and Allenby, which, since the 23rd, were lying at Vant Drift, 15 miles south of De Jagers, and Botha, without attempting any passage of the Buffalo as it was in flood, went almost due south in the direction of Zululand, and made for a point held by two forts, Itala and Prospect. He moved slowly; it is said his horses had suffered severely from heavy ground and exposure,† and it was 26th September before he reached the forts, 60 miles away from the scene of the disaster to Gough. During these nine days every preparation had been made to defend the positions.

Itala is the only one which interests us. It was held by 300 men of the 5th Division Mounted Infantry, the veterinary officer being C.V. Surgeon Probyn. The horse lines were placed in the centre of an entrenched position, which occupied a level surface at the foot of a long ridge running from Itala Mountain. There was really no fort, but merely open trenches with no cover for the animals. The attack on Itala began at 2 a.m. on 26th Sept. It was not unexpected; the garrison had been warned by Zululand of what was about to occur. What the "Official History" describes as a "whirlwind of bullets" from 1500 rifles opened the fight, the first phase of which ceased just before dawn, but was renewed at daylight with still greater

intensity. From all sides there streamed in a storm of lead so heavy that "it seemed as though the defence must shortly be blown to pieces."\* A ring of fire was poured out for twelve consecutive hours, at the end of which the enemy retired having suffered heavy loss. The British evacuated the position at midnight, leaving 59 wounded behind under the care of C.V. Surgeon Probyn.† Nearly all the horses, 222, of the M.I. were killed.

Meanwhile, *Fort Prospect*, 15 miles away, was attacked for twelve hours, but this place was properly protected, and after a severe struggle the enemy withdrew. Bruce Hamilton at Vant Drift, 48 miles from Itala, started for its relief with 1600 men without transport, and in twenty-three hours reached Itala on 28th Sept., a great but useless march, as Botha was on his way north and the garrison had relieved itself.

The plan to catch Botha in this awkward part of the Transvaal led to a good deal of marching. As a matter of fact he was in a quandary; there was only one outlet to the high veldt available, and this was 100 miles away, but he wriggled past the various columns sent either in pursuit or to cut him off, and emerged from this pocket of the Transvaal unscathed. In this matter of cutting off Botha our forces moved slowly owing to the nature of the country and the use of ox waggons as transport. It was worth a supreme effort to effect the obliteration of this Commando and its gallant chief. Bruce Hamilton, after his march to Itala, turned north and followed, but he was too far behind. W. Kitchener was within ten miles of the enemy, and Clements not more than thirty miles off, but errors and misunderstandings arose and nothing effective resulted. Plumer had been brought from the south of the Free State, but was too late to be of use. Eight columns in all were employed in the endeavour to cut off Botha; it gave the animals an enormous amount of work but with no results. The roads were bad, as evidence of which may be quoted the fact that it took W. Kitchener five days to march twenty-seven miles. Heavy rains and mists made matters extremely difficult; day by day the horses of the various columns became more and more weakened by exposure, and the effects of insufficient food. The escape of Botha from an impossible position was soon to meet with its penalty.

\* "Official History," Vol. iv., p. 220.

\* C.V.S. J. H. Walker (now Agricultural Dept., S.A.) was the veterinary officer with Gough's M.I., and has been good enough to furnish me with notes of this disaster. Gough took the greatest care of his horses; he adopted every expedient to save them and get them in condition. A parade of the sick was held daily, and all his officers, following his example, strove hard for efficiency and reduction of mortality. Especial attention was given to the prevention of saddle injuries. The 250 horses captured by Botha must have been a valuable asset to his force, as they were all in hard condition.

† "Times History," Vol. v., p. 343.

† At the close of the first phase of the fight, the medical officer of the garrison went out to render assistance to the wounded of a party which was outside the defence at the moment of attack. He was captured by the enemy, so that when the second attack was made there was no one to attend the wounded of the garrison, at a time when men were falling rapidly. C.V.S. Probyn, now Captain A.V.C., during the twelve hours this stage of the fight lasted took entire charge of the wounded. For his services on this occasion he was mentioned in Lord Kitchener's despatch of 8th Oct. (*London Gazette*, 3rd Dec., 1901). Colonel Chapman, 5th Mounted Infantry, who commanded in the defence, greatly appreciated the care and skilled attention given to his wounded men, which must have resulted in the saving of much suffering and of many lives.

There were 9000 horses and an unknown number of mules and oxen employed in these operations. The losses were very heavy, but are unrecorded. The names of only a few of the veterinary officers accompanying the columns are known, so that no list can be attempted.

#### *EASTERN TRANSVAAL.*

OCTOBER, 1901.

#### *BAKENLAAGTE.*

Botha arrived at Amsterdam on 11th October, and here received a report of what had occurred in his absence. At present his movements were unknown. Matters in the Eastern Transvaal were in a bad way, for Benson's column (p. 167) had been running riot, and became the fear of the country. All during September he had been dealing heavy blows in the Caroline district, and performing marches which hitherto had never been attempted on an extended scale. For example, on the 10th, 15th, and 16th long night marches brought their reward: on 18th a forty mile ride was followed by a smart attack on a laager and heavy captures. He travelled with a moveable supply depôt, but in spite of all this transport, for the care of which he took infantry, it did not fetter his mobility. The enemy had to conform, and accordingly never spent two consecutive nights in the same laager, and their horses were saddled up before daybreak.

The veil was lifted as to Botha's movements on learning that he was at Athole on 18th October, and two columns brought from the Vaal to Standerton, commanded by Rimington and Rawlinson, were sent against him. Their operations on 25th October nearly resulted in his capture, he fled just in time, leaving his correspondence behind. After some other operations the two columns returned to Standerton to refit.

Meanwhile Benson had refitted at Middleburg, where many of his seasoned and trained men had been exchanged for those who had been doing line of communication work. He left on 20th October with over 900 mounted men, infantry, 230 mule and 120 ox waggons, and about 2300 mules and 1450 oxen. We give these numbers as indicating the amount of impedimenta necessary to enable even a small force to keep the field for several consecutive days. He was now, 30th October, returning to the line for supplies after a not very successful tour. The weather was wet, the drifts difficult, and a high wind blowing in the face of the transport did not help matters. From early morning he had been harassed by the enemy, and by mid-day the forces around him had greatly increased. It is now known that at this moment Botha with reinforcements had arrived. Benson's operations had aroused a feeling of intense irritation on the part of the enemy, and for some days arrangements were being made to deal effectively with him. He was now alone on the high veldt, and the time had arrived. Botha, whose whereabouts was unknown, rode seventy miles, of which

thirty were without drawing rein.\* Some of the commandos joining him had done their sixty miles in twenty-four hours. All were anxious to avenge the losses they had experienced. Benson, now on his way to Middleburg, was the objective.

Benson had been marching since daylight under disadvantageous conditions owing to rain and mist; the enemy was causing some trouble, which increased towards noon. This, though not known at the time, corresponded to the arrival of Botha and the other commandos. A little later some waggons stuck in the mud brought Benson to the spot at a time when pressure was being exercised on the rearguard. The commandos now advanced rapidly, the escort galloped after the guns, which had been sent on, and left the waggons to the enemy. This small force of 280 men of the Scottish Horse and Yorkshire Light Infantry, M.I. and two guns took up position on a ridge, and here the drama was enacted. The ridge was a little more than a mile from the place selected for the camp at Bakenlaagte. At the latter the transport had safely arrived.

In the attack on the ridge the enemy adopted the new galloping tactics. They advanced on it in line, having a front nearly a mile and a half in length; 2000 men galloping, shouting and firing from the saddle soon reached the ridge, where they dismounted and opened fire on the small band. The "Official History"† must tell the story.

"So grand and terrible a spectacle had not been seen, nor had the earth so shaken on any battle field in South Africa. . . . Alone on the gigantic bosom of the veldt the little knot with Benson calmly faced the approaching catastrophe. . . . Flight was still possible, the horses were at hand . . . but no man stirred from his place. . . . In a few minutes a tempest of lead burst at point blank range upon Benson's soldiers. . . . Guinees . . . ordered up the horses to attempt to drag the guns away. The teams were shattered as soon as they appeared on the rise, and not one of their riders rose from the heap. . . . The final scene soon came. When silence told the Boers that resistance was extinguished they rose in five dense rows, poured over the ridge, and swarmed about their handiwork, some still firing furiously, some stripping the corpses, some with unusual ferocity robbing and even shooting the wounded, others hurrying forward to the reverse slope to seize the led horses which stampeding madly, added the thunder of their hoofs to the uproar."

Benson, who was still alive, sent a man who had been stripped of all but his shirt running to the camp and directed his own guns to play upon the ridge where he lay. Shrapnel rained down, and the enemy evacuated the ridge now occupied mainly by the dead and dying. Of 280 men, 66 were killed and 165 wounded. Among those who lived through the fierce fight were the medical and veterinary officers of the Scottish Horse, the latter being C.V.S. C. M. Sharpe (now Agricultural Dept., S.A.), whose horse was killed. Once more, as at Wilmanrust and Itala, the veterinary service was able in a time of great crisis to apply its technical knowledge in the relief of the wounded men.

\* "Times History," Vol. v., p. 367.

† Vol. iv., p. 311.

The losses among the animals were confined to the guns and M.I. horses, the transport animals being in camp; this Botha did not attack. Columns from east and south were soon on their way to the relief of Benson's remnant. G. Hamilton from Standerton with the columns of Allenby and De Lisle, 2000 mounted men, marched 52 miles in the 16½ hours, and Barter near Springs marching through the night covered 30 miles between dusk and dawn. Both columns arrived at Bakenlaagte on 1st November and provide noteworthy examples of forced marches.

#### ORANGE FREE STATE.

OPERATIONS, JULY—DECEMBER, 1901.

#### ELLIOT'S DRIVES—SMUTS INVASION.

QUAGGAFONTEIN, SLANGFONTEIN, TAFEL KOP,  
TWEEFONTEIN.

In the first half of July four columns under Bruce Hamilton continued to harry the south-western and western portion of the Free State, until required to block the driving line for Elliot in operations described below; on the east of the railway, during the same period, C. E. Knox with two columns was raiding Brandford, Thabanchu, Senekal, and Winburg. Immense supplies were obtained by him, among others 16,000 head of stock, and a few days later 70,000 head from districts so frequently "cleared" that it was impossible to believe anything remained. A better example of the difficulty of clearing a country—operations which were the chief source of horse exhaustion now that the enemy would only fight when it suited him—will be given presently, and refers to this identical district.

The news of Smuts projected invasion of Cape Colony (p. 167), led to a fresh distribution of the columns. It was obviously desirable to close the Vaal as soon as possible, and various forces converged on it. Henry and Paris on the western line proceeded to the Hoopstad district. Western left Klerksdorp and proceeded to the Vaal in that section on the direct road to Bothaville. G. Hamilton, also from Klerksdorp, occupied the river lower down, and Elliot, whose division after refitting at Vredefort Road (p. 160) marched N.W., crossed the Vaal, and was at Klerksdorp on 24th July. Meanwhile Smuts, who set out on 15th July, had evaded the columns sent to look for him, and was making for the rendezvous he had appointed for the three other parties who were to join him. Their numbers were small, all four only totalled 340 carefully selected men. The party under Smuts reached the Vaal south of Klerksdorp on 28th July, and while searching for a passage became aware that seven columns were leaving Klerksdorp and marching south. These columns were about to take part in the largest sweeping movement to which the Free State had been subjected. They formed part of a big scheme for clearing the whole of the N.W. part of the State

from the Vaal on the north to the railways east and west and south as far as a line drawn from Bloemfontein to Jacobsdal. The railway lines had been blockhoused and fenced with barbed wire, the southern line—Bloemfontein-Jacobsdal—consisted of constabulary posts, behind which was a second barrier consisting of columns, and again behind this a third barrier of columns extending from Edenburg to Orange River Station. A glance at the map will give some notion of this vast undertaking, the track to be swept was 120 miles long and 100 miles wide.

In addition to the seven driving columns with Elliot there was to be one behind him to prevent the enemy breaking back, and others on his flanks in the advance to keep the enemy from breaking out at the sides. One of these columns was furnished by Plumer, who was placed near Modder River Station, having for the purpose of this "drive" been brought from far off Carolina in the Eastern Transvaal. The total number of columns employed was seventeen, with 13,200 horses, exclusive of transport animals. From the 29th July to the 10th August the "drive" continued, and on the latter day Elliot reached the Modder River. The results, so far as stock was concerned, were good, 186,000 sheep and 21,000 cattle, together with 814 waggons, but the prisoners were few.\*

Smuts and his party were not in the net in which he by accident found himself. With almost unparalleled coolness and audacity he had quietly followed behind Elliot and took advantage, while the latter drew to one side to cross the Modder River, of rushing over, charging through the line of constabulary posts, and after hair breadth escapes from the columns behind this line, he crossed to the west of the blockhoused railway at Jagersfontein Road on 18th August, and reached his next rendezvous at Zastron in the S.E. corner of the Free State. From captures and fire his numbers had been reduced by one hundred men.

Elliot's column on conclusion of the big "drive" faced east, and refitted at Glen. Here with his original force he formed a line between Glen—a few miles north of Bloemfontein—and Ladybrand, points 70 miles apart, and drove on the 18th August in a N.E. direction across the Free State. The idea was to entrap the enemy in the Brandwater Basin where Rundle was waiting to deal with them. Any attempt to break away from Elliot to the north was to be stopped by four columns operating from Winburg and Senekal, but the general results were barren.

Meanwhile, in order to deal with Smuts and his band of stalwarts at Zastron, two columns were detailed and from these he suffered further loss. At Zastron he had met Kritzingen, who had been

\* Elliot reported that the fighting men "he had been unable to capture need not be reckoned with for the future, so little spirit remained in them." "The Official History," Vol. iv., p. 260, adds:—"It will appear later how greatly he undervalued, not only the numbers, but the quality of the game which had escaped him."

driven out of Cape Colony in operations yet to be noticed. Untiring efforts were made to surround these two dauntless men with their following of 500, and for this purpose four more columns were poured into this area, one coming from as far off as the Magaliesberg. Fifteen miles away was the Orange River: it was held by Hart with three columns, two garrisons, and a line of blockhouses; nevertheless Smuts crossed on 4th September with small loss, Kritzingers remaining behind to keep the columns employed, and then disappearing into space. The next time that Smuts crossed the Orange River was as a Peace delegate.

The "Official History of the War," after remarking on the almost unaccountable failure of the British combination to stop this leader's progress, adds, "Throughout the campaign in South Africa there was scarcely a more striking feat of perseverance, daring and good fortune, than Smuts' ride of 300 miles, through one British army after another from the Gatsrand up to and over the banks of the Orange River." \*

The "Official History," † in commenting on the disastrous escape of Smuts, ‡ from what appeared to be an impossible position on the north bank of the Orange River, points out that the investing columns so exhausted themselves by skirmishing, that at the critical moment they had to pull into the railway to refit. It attributes this to the neglect to appoint a single and supreme commander on the scene of action. §

\* "Official History," Vol. iv., p. 268.

† Vol. iv., p. 267.

‡ It was due to his influence, and above all his strong personality, that Cape Colony for the remainder of the campaign was never free from Commandos. It was Smuts who actually organised, and very nearly succeeded in carrying the war into the streets of Cape Town. Young, bold, vigorous and eloquent, he was a natural military commander with no training in the science of war—for by profession he was a lawyer—and nearly succeeded where Botha, De la Rey and De Wet failed. His military skill stands out even in such a body as the Republican Forces, where almost every man was potentially a General.

§ It may seem a far cry from military operations to veterinary organisation, but the criticism above made holds equally well. It is impossible for one man centrally situated to control the hundred ramifications of such an intricate and widely-spread machine as was employed in this campaign. When the authorities were begged to create administrative veterinary officers from the lower ranks by giving them temporary appointments, it was refused as unnecessary. Yet, in no other way is it possible to co-ordinate the work of the large body of executive than by the control and supervision of a staff of administrators. It is economical from every point of view, the work is equally distributed, local difficulties met which cannot brook delay by reference to headquarters, and machinery kept moving. In this way exigencies are met as they arise, and not a few hours hence when it is too late to be of any use, while the work of officers and care of the sick are properly supervised. A body of executive officers without administrative control on the spot, or within reasonable distance, is like a flock of sheep without a shepherd. If this is the case where the whole personnel is trained for war, it can be imagined how much more necessary administrative control becomes, when five-sixths of the staff are civilians without any previous military experience or training.

While Kritzingers was lying in the neighbourhood of Zastron he was surrounded by no less than seven columns, two under Plumer, two under Thorneycroft, and one each Rawlinson, Basing and Damant, yet he, with other small bodies of the enemy under Brand, were able to defy capture and even to raid the district.\* About the 16th September they parted, Kritzingers going south to the Orange River, where at *Quaggafontein* on 20th he destroyed a party of Lovat's Scouts, while Brand went north, and on 19th September captured at *Slangfontein*, near Sannah's Post, a small force of 170 M.I., Constabulary and two guns, which was out on a raiding expedition. All the horses were lost.

Strange to say Kritzingers did not cross the river after Quaggafontein, though it was open to him; he returned to his hiding place with the captured horses, rifles and ammunition, when by chance Thorneycroft ran into him and inflicted punishment, though Kritzingers was not included. Plumer near at hand could have taken up the matter but for the fact that he was suddenly called to the neighbourhood of Sannah's Post in order to deal with Brand's Commandos, which had captured the M.I. and guns. Thither also Rochford from the western side of the railway had despatched six columns, but nothing resulted, the Commando had vaporized. Plumer, however, made another march south on 27th September, passing down the left bank of the Caledon with Du Moulin's column, where he had a skirmish on 1st October. He reached the railway at Springfontein, and was soon in the train being hurried to the south-east part of the Transvaal in connection with Botha's invasion.

Elliot's visit to the Brandwater Basin, referred to above, resulted in the capture of 100,000 head of stock, which were taken to Winburg 6th September, together with vehicles, and the destruction of 850 tons of wheat. On 8th September he made another march east; the clearance now made was still greater, and on 17th he was directed on Bethlehem in consequence of Botha's raid. Elliot arrived at Bethlehem on 22nd, and reached Harrismith on 26th September with 60,000 head of stock, waggons and agricultural produce. He now lost Bethune who was required in Natal, and Speir's column, while that of Dartnell, operating in the Harrismith district, was also withdrawn to Natal. Elliot's duty was to watch the Drakenberg until the Botha raid died out.

Rimington continued through September carrying out the class of operation noted as taking place in August. One of his journeys was to surprise De Wet and Steyn between Heilbron and Frankfort. In quest of them he performed long and rapid marches; on 23rd he marched 48 miles and made

\* Later on Damant went north to guard the construction of the Heilbron-Frankfort blockhouse line, Plumer went into the S.E. corner of the Eastern Transvaal, but four other columns were brought in which operated under Knox from central entrenched camps, and cleared the district of supplies.



many captures, but not those most desired; on 24th he rode 57 miles during the night and surrounded a house in which De Wet was supposed to be lying ill. The "Official History" draws attention to the fact that these forays could scarcely have been equalled by the enemy.

The other operations in the Free State during this time were largely suspended in consequence of Botha's descent on Natal. Elliot remained, but was guarding the Drakenberg; De Lisle and Broadwood were not entirely idle, but their operations were small. In Rundle's area some work was accomplished by a column under Briggs, who in return was attacked by De Wet, by the new method of charging, and narrowly escaped destruction. The fact was that Rundle's three mobile columns were very weak in mounted troops. He had at Harrismith a considerable number of Yeomanry who were in the stage of elementary instruction.\* These men knew nothing of the care and management of horses and appeared disinclined to learn. They used up animals in their training at a rate with which it was impossible to cope; they neglected the horses which were under their care, and though they possessed some self-sacrificing veterinary officers of considerable ability, their task was rendered entirely unprofitable for want of higher support.

In September, Bruce Hamilton having gone to the Natal border, his columns became scattered. Byng and Dawkins went to guard the construction of a block-house line running south from Poteschefstroom into the Free State, and during this month had many successful night raids. It was again observed how trifling was the effect of the passage of a clearing column unless it remained in the district and systematically devastated a given area. Byng found that places in the path of Elliot's big drive were once more in occupation and even replenished, though but a month previously they had been swept over by his numerous columns. Elliot himself found at his second visit to the Brandwater Basin, that farms which had been cleared were again replenished; as the "Official History" remarks † "No resources are so difficult to dry up as those of an agricultural people." It was recognised that something more than "drives" were required to clear a district.

To meet this, columns were no longer to sweep districts which formed important sources of supply, but were to remain in them and clear a definite area "of every living creature." ‡ Ten columns

\* The "Times History," Vol. v., p. 432, says:—"There were 3,000 untrained Yeomanry sent him in April, and the majority of the officers, with 20 per cent. of the men, were sent home as useless."

† Vol. iv., p. 325.

‡ On 11th July, 1901, an Order was published in which it was pointed out that the speedy termination of the campaign depended on the relative horse supply of our own and the enemy's troops. It was there stated that the enemy was reduced to riding mares and young stock, and to prevent this column commanders were directed to collect

under C. Knox now took up the "fixed area" scheme in the region north of the Orange River in the south-east corner of the State, and remained there two months. Fighting and raiding went on day by day; it was then realised the enormous difficulty of clearing even a small portion of the enemy's country. Sufficient grain was found "concealed in false ceilings and by false walls to feed the Boer forces in the district for years.\* Further, several Commandos of between 200 and 300 strong were unearthed, though the district had previously been scoured by columns scores of times. The continuous work which all this represented for the horses need not be further pressed.

Elliot's guard of the Drakenberg was not an idle time; before the end of October 26,000 head of stock had been collected and many waggons.

Rimington had passed into the Eastern Transvaal in October, and his place in the Heilbron district taken by Wilson and Damant, the latter guarding the block-house line being constructed to Frankfort. Fighting around Heilbron now occurred, although the district was believed to be empty. Wilson was attacked and a party ambushed; Damant had a strong Commando around him, and 1500 were known to be near Heilbron. These were attacked by Damant and dispersed, but the presence of such large bodies of the enemy was indicative of some preparation for reprisals. De Wet had long been silent, but towards the end of October it was known that his Commandos were assembling on the Liebenbergs Vlei River, 45 miles south-east of Heilbron, and a plan was made to surround him; "unlimited ingenuity and thought were lavished on the scheme." † Briefly, it consisted of a ring having a diameter of 150 miles. Thirteen columns, containing 15,000 horses, were thus employed, and on 6th Nov. the contraction of the ring was effected in six marches. It led to 14,000 head of stock, 200 waggons and a batch of prisoners, but no large body of the enemy was within the circle. The information of the convergence had been flashed by heliograph from hill to hill, and the Commandos had marched out while the gaps in the circle were still wide. ‡ The columns now dispersed, and two of them were attacked on 16th Nov. when near Heilbron, evidence that the enemy was still in being.

and destroy at once all such animals which were useless as remounts. This is the Order referred to in connection with Elliot's column at p. 161.

The Order goes on to say that to clear the country of horses is essential to peace and its subsequent maintenance, and that it is impressed upon all commanders "that there must be no hesitation about destroying useless horses and young stock on the ground that they can be of no use to the Boers, cost nothing to feed, and that it is a pity to destroy them. That they should eventually grow up to carry an armed Boer to the disturbance of the public peace is exactly what it is desired to prevent."

\* "Official History," Vol. iv., p. 328.

† Idem, p. 331.

‡ Idem, p. 333.

During the remainder of November Rimington and Damant raided, the former sometimes north of the Vaal in the vicinity of Greylingstad, sometimes south. Elliot also made another drive; leaving Harrismith on 19th Nov. he worked by Bethlehem and Lindley to Kroonstad. At Lindley, without knowing it, he passed close to De Wet who was awaiting a Council of War. As far as Bethlehem he was supported by Rundle and Dartnell. There was constant skirmishing, and when he entered Kroonstad on 30th Nov. he brought with him 42,000 head of stock and many waggons. Rimington, a day or two before this, had suddenly descended south from Frankfort in consequence of news regarding De Wet being between Reitz and Lindley holding the above-mentioned Council of War. He made for the point with Wilson and ran into a hornets' nest, De Wet was present with several Commandos. Rimington's transport, some miles behind, was attacked, and was only rescued with difficulty and the attack driven off. But De Wet coming up with superior forces arranged to cut Rimington off from Lindley, which was only five miles away. A severe storm delayed his arrangements. During the night Rimington stole away in the opposite direction to Heilbron, and saved himself the fate of Benson. Next day De Wet entered Lindley; it was evident that after the long period of eight months since his retreat from Cape Colony he had once more opened another and, as it proved, his last campaign.

In consequence of the recrudescence of the noted leader another drive was planned, in which the impression to be conveyed to the enemy was that it was to take place in an easterly direction, but on a given date all the columns were to double back, drive to the west, and so enclose the Commandos which it was hoped would have passed from east to west for safety.

Again we must realise the nature of this gigantic undertaking. Elliot with his columns was to march east from Kroonstad on December 8th. Rimington and Wilson were to leave Heilbron and join Damant at Frankfort, and move to the line of the Liebensbergs Vlei, which runs south to north immediately to the east of Bethlehem, Reitz and Frankfort. This movement was effected by 11th Dec. Meanwhile, it was known that De Wet was south of the line of drive, having collided with one of Elliot's columns on the first day's march from Kroonstad, nevertheless the columns now faced about, and for four days drove west towards the railway. The results were trifling, the real objective of the operations was 40 miles south awaiting the dispersal of the columns and organising his forces which were daily growing in strength. But the columns did not disperse, on the other hand five\* converged on the very place he had recently occupied, but they saw nothing of the enemy nor did they all see each other. They returned to their bases, Elliot proceeding to Kroonstad after six weeks continuous operations. De Wet, on the other hand, was

well informed; he was now north of Bethlehem awaiting the return of the Harrismith column under Dartnell. This latter he ambushed on the 18th only eight miles from Bethlehem, and fortunately failed. He had to deal with the Imperial Light Horse, whose experience dated from the first day of the war.

After Elliot's last drive, Rimington and Damant returned to Frankfort, where they again worked in conjunction protecting the block-house line then under construction from Frankfort to Vrede. Here on 20th Dec. at *Tafel Kop* Damant met with almost complete extermination of a portion of his force, due to the enemy posing as Yeomanry and advancing to point blank range before being discovered. It was a repetition of Bakenlaagte in the devotion shown to save the guns, seventy-seven men out of a total of eighty being killed or wounded. All the horses were lost so that the guns could not be carried away by the enemy, and meanwhile reinforcements, including Rimington, completely turned the tables on the victors.

De Wet after *Tafelkop* lay near to the block-house line running from Harrismith to Bethlehem, in the difficult Langberg hills, collecting his Commandos, now 1200 strong, though at this time the local Intelligence Department reported the existence of 70 in the neighbourhood. Nine miles west of Elands River Bridge, itself 18 miles west of Harrismith, a party of the 11th Batt. Imperial Yeomanry, 500 strong, was safeguarding the construction of the line, their camp being on a hill at *Tweefontein*.† It was Christmas Eve, and since the 21st Dec. the hill had been occupied. During this time it had twice been personally reconnoitred by De Wet. He had marked down the troops on this lonely hill for destruction, and no better night could be selected than Christmas Eve. The men were in tents and the horses picketed a short distance away. At 2 a.m. on Christmas day the camp was suddenly attacked, the enemy was actually in it before being discovered, and swept the place with fire. They then charged down the hill on to the tents and horse lines shouting and shooting. In an hour the work of destruction was completed and the looting began. 145 men were killed and wounded, 200 taken prisoners. All the horses were lost, killed or captured. The Kafir transport drivers with the column were shot out of hand. The Burghers made a good Christmas breakfast, and then left with guns, waggons, and loot at 4 a.m. A messenger to Elands River Bridge for help did the thirteen miles under the hour, and the Imperial Light Horse galloped out, but were unable to pursue the enemy who had already vanished into the hills of the Langsberg. On the 25th, De Wet marched north, and leaving his force, in order to visit Steyn, directed his Commandos under Prinsloo to keep between Reitz and Heilbron.

\* Three from Kaalfontein (between Lindley and Kroonstad), one from Winburg, and another from Harrismith.

† We have adopted the official name, the hill was Groen Kop.

Meanwhile, Elliott at Lindley had been directed to march on Reitz, and left Kroonstad on 26th Dec. His force of 2000 men was now in two columns, one under De Lisle, the other R. Fanshawe. On 28th, Elliot came in contact with Prinsloo's force, but was outwitted by the Republican General who escaped north. Contact was again obtained, but was lost at night after a remarkable march by Elliot of 70 miles. To accomplish this, half of Elliot's force marched east without guns or transport. De Wet rejoined his force passed to the east, where he dispersed his Commandos, while Elliot went to Lindley for supplies.

The number of columns engaged in these operations in the Orange Free State was between 30 and 40. During July and August there were 37 columns employing 23,200 horses, exclusive of transport animals. From September to November there were no less than 43 columns with an aggregate strength of 27,400 horses. Such was the work being carried on in only one of the three areas of warfare.

Commenting on the extraordinary inability of the British Forces to bring about a decisive action when the enemy was massed, or to prevent, almost under the eye of the columns, concentrations for the destruction of isolated detachments, the "Times History" \* reviews the position of affairs which, though in the main a military criticism of the methods adopted, is so intimately connected with the wear and tear of horses, that we cannot do better than reproduce it.

"The operations described in this chapter may be said to mark the final failure of the standard British measures. To have proceeded on the same lines would have been to permit an indefinite extension of the war. The waste of energy had been enormous. If the reader will reckon up the troops and horses employed, and the distances covered by the columns in the north-eastern Free State during the last two months of 1901; if he will consider the fruits of their labours, which, if we except the deaths of Haasbrock and Olivier, and the burghers slain at Tweefontein, was represented only by dribblets of killed, wounded and prisoners, and by damage to crops and stock; if he will then reflect that De Wet, having concentrated undisturbed in the midst of these movements, scarcely moved outside the small triangle, Lindley-Reitz-Tweefontein, thus husbanding his men, horses and ammunition; if the reader will make this comparison, he will understand how it was that British leaders and their troops, under the incessant strain of ineffectual marching, were liable to lose ardour and tackling power, while the supply of horses was never equal to the demand; and how it was that the Boers, in the forlorn condition of their country, retained the power to deliver such strokes as at Tafel Kop and Tweefontein."

The only part of this criticism that we would venture to expand is that dealing with the horses. The supply of horses was equal to the demand, but the supply of *conditioned* horses never was—and never could be under the system adopted of issuing them to columns the moment they had been imported. We have throughout this narrative quoted the captures of stock made by the various sweeping operations as far as they are recorded. It is not

always easy to distinguish between horses and cattle, but it is known that many thousands of horses were brought in from the Free State operations alone during 1901. We have given evidence p. 160 of the proportion of these fit for military purposes, and it is true that very many were so employed. But was this source of supply fully utilized? Thousands of suitable animals had never been handled; it did not appear to occur to the authorities that unbroken horses require training, and the more mature they are the more difficult this becomes. Where was the staff to come from for this work? Rimington\* and De Lisle trained unbroken horses with their columns, the latter placed them in the ranks at the rate of three or four † a day. Besides being a first class horse master and enthusiast, he was fortunate in possessing a body of Australian horsemen in his column to whom the handling of unbroken and troublesome horses is a pastime. But all columns were not so favourably placed, nor, unfortunately, did all possess leaders with so keen an eye to possibilities and a knowledge of how to turn them to the best account as were to be found in Rimington and De Lisle. But apart from the local supply, who was to condition the imported horse? He certainly could not be made fit for work by remaining a month in a remount depot before issue, a restriction urged on Lord Kitchener from home. ‡ He required to be ridden, and for this purpose the existing staff at Remount Depots was wholly insufficient and untrained. The only people who could have trained these horses for the field were the 11,000 cavalymen employed by the various columns, and unless hostilities could be suspended for six or eight weeks so as to have allowed some thousands of horses to be made fit for work, it was impossible by any less drastic measures to have coped with the question of fit versus unfit animals †

## CAPE COLONY.

SEPTEMBER—OCTOBER, 1901.

### MODDERFONTEIN.

Smuts, whose early adventures have been alluded to at p. 173 crossed the Orange River on 4th Sept. in the vicinity of Aliwal North, and made south-east in the direction of Jamestown; with him was Fouché. He was pursued, but unsuccessfully. His entry into the Colony was part of a bold scheme for capturing Cape Town and Port Elizabeth, the latter being Smuts first objective, though

\* R.C. Erid., Q. 12,606.

† I quote from memory, being unable to find the reference.

‡ Cd. 963. Cables 8th Jan., 21st Nov., 7th Dec.

† It may be suggested that Kaffirs could have conditioned the riding horses, but such a system would have taken a good deal of organisation. If the thing was to be done rapidly the Cavalry with the columns appears the best solution, especially as they possessed the saddlery, an important point which would have delayed any system worked by Kaffir labour.

circumstances compelled him to pass to the west. The chase of Smuts, whose journey began under such dramatic circumstances, is only of interest to us as enabling an idea to be formed of the nature of the work expected from the horses. It is necessary to indicate what he did and where he went if we are to appreciate the work demanded from the animals, and the distances covered by the twenty columns, with its 9300 horses, which endeavoured to arrest his progress.

Six columns were already within the area selected by him for invasion; these were so disposed as to keep him to the east, and deny the midland district which had only recently been swept, p.169. In spite of the collection of columns Smuts was able, after a twelve hours fight on 10th Sept., to wriggle between Monro and Doran in the dark, and then pushing on all night through heavy rain, did not halt until he had crossed the Eastern line in a south-westerly direction, and placed forty miles between his commando and that of the enemy. Four columns were told off in pursuit, and these were pushed on both by road and rail, in order to plant forces in his path in the direction in which it was anticipated he would take. One of the forces, consisting of a squadron of 17th Lancers 130 strong, was attacked by Smuts on 17th Sept. at *Modderfontein* on the Elands River, north of Takastad, and decimated. Half the horses of this squadron were captured, the other half were killed in action. The columns of Doran and Gorringe once more closed in, while Smuts travelled up and down the country in the space enclosed between the Eastern and Midland railway, the columns at his heels. Sometimes he was turned, and when almost hemmed in would find a line of escape between his pursuers. This he did on the 9th, and rapidly travelling south for the Winterberg Mountains found his passage barred. He came back going west in the direction of Cradock and ran into Scobell. He was then chased south, and being guided over the mountains in the dark saved his commando. It cost him 100 horses, but of these he had ample, owing to his captures at *Modderfontein*.

After crossing the Winterberg he rapidly made for Adelaide, was turned aside by local forces, and still pressing west crossed the Midland line. On 30th Sept. Gorringe, who was in hot pursuit, made contact in the Zuurberg Mountains north of Port Elizabeth, but not for long, for Smuts turned south in the direction of that city. French now threw more columns into the next line of rail west, which runs from Port Elizabeth to Graaf Reinet, so as to be able to stop further progress in that direction. Meanwhile Smuts turned north, being so harassed that he divided his Commando, one portion under Venter going towards Somerset East, while the main body crossed the Graaf Reinet line, in spite of the troops sent by rail to forestall him. Scobell on 8th Oct. now took up the pursuit, and for four days with barely any rest day or night he followed but could not overtake him. On 16th Smuts, still going

west, in the direction of the main Cape Town line, met Scheeper's late Commando and the two travelled together; by this time Scobell had to go to the line for supplies, and Crabbe took up the chase. The general direction now taken by Smuts was south into the valley of the Olifants River; he then went west, Crabbe, who was still in pursuit, moved towards Oudtshoorn where he linked up with Kavanagh's column from Ladysmith, and during the last week in October endeavoured to surround Smuts. But the latter succeeded in working west, crossed the Cape Town line at Constable on 31st Oct., and made for Sutherland. He had succeeded, in spite of opposition, in reaching his objective after a remarkable chase of not less than 600 miles.

Venter, who broke away in the direction of Somerset East, was chased by B. Doran and Lukin; the latter had now taken over Gorringe's column. Venter's position on exhausted horses was desperate, but he boldly broke through a line of local troops between Somerset East and Pearston and took them prisoners. Thus remounted and re-equipped he proceeded north. The Midland and Graaf Reinet lines were used to hurry troops forward to cut him off, thereupon he doubled back and crossed the former line between Middelburg and Graaf Reinet. Nevertheless, Lukin overhauled him at New Bethesda, where the Commando was attacked with loss. It then broke away north-west, and was again found on 26th Oct. south of Richmond. Scobell at this moment was on the western line refitting; he was at once sent to Victoria West Road to cut him off, but Venter crossed the line and escaped to the west. Before he crossed two commandants left him to go south. These were Malan and Hugo, the latter the Free State judge; both were dangerous and determined leaders. B. Doran followed them in the direction of Willowmore. The pair had previously been joined by an equally dangerous man Latigan, whose Commando we saw, at p.169, had been dispersed by Lukin on 21st July. B. Doran located his enemy forty miles west of Willowmore where he attacked them. Doran was wounded and his horse killed. His place was taken by his brother W. Doran, who chased the trio north-west, but they all crossed the railway above Fraserburg Road station on 13th Nov., and went out into the west towards Sutherland.

When Theron went south after appearing at Prince Albert on 2nd Sept. (p.170), he made for Oudtshoorn, Kavanagh from Willowmore moved in that direction. Theron then made for Mossel Bay, and when within a few miles of this port Kavanagh caught him and drove him west across the Gouritz River. Here Theron lost over fifty horses and several men. Still keeping west and well ahead of Kavanagh he attacked Heidelberg near Riversdale on 13th, the garrison of which kept him employed until Kavanagh came up, when he made off north-west for Barrydale. When Kavanagh reached this place on 17th, the chase was temporarily dropped as he had to go into Swellendam for supplies.

It is noteworthy that at Barrydale Theron was only 130 miles from Cape Town. It is fortunate Kavanagh prevented him from reaching the sea at Mossel Bay, as the moral effect of this would have been very great. After Kavanagh fell out, Alexander and then Wyndham endeavoured to intercept Theron, but he crossed the Cape Town line at Touws River on 22nd Sept., and went westward into the Sutherland district.

Scheepers remains to be dealt with. It will be remembered that he repulsed Alexander on 19th August at Uniondale, p.170. From here he went west, his head being turned towards Cape Town. Making for Ladysmith on 23rd August he was twice caught up but forged ahead, and caused much anxiety by making for Swellendam, with its large collection of stores, or even for Worcester where thousands of remounts existed. By 9th September Scheepers was headed from the Cape Town line and divided his Commando; part under him made for Swellendam with Atherton in pursuit, the other, under a boy Commandant, Van der Merve, went north, and almost immediately encountered Crabbe from Laingsburg; Crabbe destroyed the Commando, including its Commandant, on 10th. Crabbe was now able to join Atherton in chasing Scheepers. The latter arrived at Ladysmith on 12th, and while Atherton operated around Oudtshoorn to prevent a break away north, Crabbe kept Scheepers in the difficult country on both banks of the Olifants River, where for days he twisted and turned in order to avoid not only Crabbe and Atherton, but also Alexander, Wyndham and Kavanagh, who by this time were available to act against Scheepers in consequence of the escape of Theron. Scheepers, working north-west, "strove like an imprisoned panther to break through the cage of troops and precipices which held him in." \* On 5th October Atherton was able to push him towards Kavanagh, who robbed him of sixteen men and forty horses; still running north from Matjesfontein he lost 150 more horses, and on 8th sixty more. By the time he reached the Wittebergen Mountains, south of Matjesfontein, he had only fifty or sixty mounted men left. By now Wyndham, Kavanagh and Atherton had dropped out, and only Crabbe and Alexander remained. Alexander followed him across the line, Crabbe took train for Beaufort West, with the intention of coming on him from the north, but Scheepers course was run. Sick with fever he was captured in his bed on 11th Oct. His Commando being led by Pypers, who subsequently joined Smuts. †

\* "Official History," Vol. iv., p. 284.

† Scheepers being a rebel was shot four months later. He was described by one who fell into his hands \* as a young and superior man, who wore a semi-military uniform. His men were distinguished by wearing yellow puggaries. It is interesting to learn the actual life led by these men on Commando, and the methods they followed which enabled them to evade pursuit. An account of this is given in the

"Rhodesia and After," S. H. Gilbert, 61st Squad. I. Y., 1901.

## WESTERN TRANSVAAL.

SEPTEMBER—OCTOBER, 1901.

MOEDWIL, KLEINFONTEIN.

The events recorded in the last section had helped to deplete the Western Transvaal of troops; G. Hamilton, Allenby and Garratt were now in the Eastern Transvaal; Methuen was refitting at Mafeking after the affair on the Marico River, p.168; Featherstonhaugh's columns, led by J. Williams and Hickie, were doing the same at Ventersdorp after two ineffectual attempts on Kemp. Kekewich had now taken over command of the force in the entrenched camp of Naauwpoort, lying south of Olifants Nek, and on 13th Sept. with a force of 560 mounted men, consisting of the 1st Scottish Horse, 7th Batt. I.Y., Infantry and guns, he moved along the northern slopes of the Magaliesberg, engaged in the never-ending work of clearing the country. After some days he passed through Magato's Nek, and was now in the difficult and ever-dangerous Zwarttruggens. When seven miles east of the pass he encamped on the Selous River at *Moedwil*. Nothing had been seen of the enemy, and though this was the haunt of De la Rey, he was believed to be away.

The camp of Kekewich was attacked before dawn on 30th Sept. by 1500 men under De la Rey and Kemp, who had followed the Column for a week until, presumably, its position was suitable for their operations. Considering the circumstances and that many irregular troops were receiving their baptism of fire, there was very little confusion at the moment of attack, in spite of the fact that "mobs of terrified horses and mules stampeded wildly through the camp." The fire was very heavy. "Horses and mules went down in hundreds, and a number stampeded in the direction of Megato Nek. † Very soon after daylight Kekewich was

above quoted work by one who spent eleven days as a prisoner with Scheepers. Their camp at this time was at a farmhouse in the Camdeboo Mountains, situated in a ravine at the foot of almost precipitous masses of rock. The Commando was made up of old and young, some being boys of fifteen. In the evening they sang hymns; it may be remarked that these performances are not inspiring. It is the old Puritan drawl, the notes being prolonged in such a way as to render identification of the air almost impossible. When the Commando broke camp the men assembled, and bare-headed sang the Transvaal National Hymn. This was always done unless pressed by the enemy. The following gives a very clear account of how a Commando moved in a difficult country:—"They had no transport, and dismounting they tied their horses in long strings head to tail, with an old stager in front. The animals then clambered up the almost perpendicular rocks by a dizzy track, which the Englishman would have thought twice about attempting on foot. The Boers clambered after them, sometimes having to use their hands as well as their feet, and so the summit was reached." When the men had no food they lived on the leaves of the "Spek-boom" tree, which furnishes fleshy leaves tasting like sorrel. It is little wonder that an enemy so resourceful and self-contained could move about a friendly country with relative impunity.

\* "Times History," Vol. v., p. 381.

† Idem.

able to do more than hold his own, he made a counter attack, and so threatened the left flank of the enemy that they shortly retired. The losses were 192 men, while 512 horses and mules were killed. It was impossible for Kekewich to pursue as "there was scarcely one unmounted horse in camp.\*

Featherstonhaugh had been advancing north with his Columns from Ventersdorp, and being 25 miles south could hear the firing at Moedwil. The Columns under him searched for De la Rey, but he was invisible. Meanwhile, Kekewich proceeded to Rustenburg to refit. In twenty-four hours after Moedwil he had received 320 horses and 200 mules,† and on the 13th Oct. was marching west with a new force in search of his late antagonist in conjunction with Methuen, who was advancing from Mafeking via Zeerust to meet him. The two Forces met and saw nothing of the enemy. Each therefore turned about and retraced its steps.

Methuen's way back led through the heart of De la Rey's reserves. It was known to be a most difficult and dangerous road, and especially prone to attack. The force was in two columns twelve miles apart. On the 24th October, the southern column was ambushed at *Kleinfontein* by a party of 600 men concealed in a belt of timber. With this southern column were 680 mounted troops of the 5th I.Y., guns and Infantry under Von Donop, together with a train of 100 ox and mule waggons. The Force being engaged in front, the 600 men in hiding then rode out of the wood in three divisions "like a regiment of European Cavalry,"‡ and cut the long train into three portions. While some attempted to divert the waggons by shooting the unwilling drivers, others made for the guns with the rear guard where a struggle occurred. The waggons in the rear were now being driven off by the enemy, twenty had been overturned, and dense bush prevented the passage of others, but the guns with the convoy and the efforts of the Imperial Yeomanry had turned the tide, and in half-an-hour the affair was over. It cost 84 men, half the Yeomanry horses, two gun teams, and 12 waggons; 49 native drivers were killed, wounded, or missing. The reprisals on these unarmed men was a feature of ferocity which amounted to wanton murder. We shall see later in this history how the unarmed Indian establishment of a Field Veterinary Hospital fared at the hands of the same men. On 28th October Methuen reached Zeerust.

Kekewich was able, towards the end of October, to slightly repay part of his debt by rushing a laager reported some distance north-east of Rustenburg. On 29th October, after a 25-mile night march, he accomplished his mission with very little loss, and was back at Rustenburg on 2nd November.

\* "Times History," Vol. v., p. 331.

† "Official History," Vol. iv., p. 298. This is a good record of Remount supply.

‡ "Official History," Vol. iv., p. 299.

## NORTHERN TRANSVAAL.

SEPTEMBER, 1901—MAY, 1902.

When we last saw the Northern Transvaal it was in connection with Plumer's, and subsequently Grenfell's operations (pp. 165-167).

For several months Grenfell remained in the Northern Transvaal, surrounded by elusive enemies, to whom he gave no rest. Ably supported by Colenbrander, who knew the country and could play the enemy at his own game, Beyers and his Commandants had little rest. The enemy rarely took the initiative but had to be sought out; consequently the amount of marching done by this Force during the thirteen months it operated around Pietersburg was extraordinary, especially bearing in mind the inhospitable and unhealthy nature of the bush veldt. We can only glance at one or two of the most important operations, in order to give some notion of the amount of work demanded from animals in a district notoriously unhealthy, and which for some months in the year is fatal to all horses exposed to it.

The horse difficulty in the Northern Transvaal affected the enemy nearly as much as ourselves, and he found it necessary to conserve his Forces.

July and August were train-wrecking months, in which severe damage and loss of life was inflicted by the enemy. In September, Grenfell handed over command to Colenbrander, who, on 6th October, actually marched right across the north-western part of the country, through a most desolate and inhospitable area, until he struck the Mafeking-Buluwayo Railway. The privations encountered were considerable, 40 hours without water was not unknown; he returned through the same region, choosing a worse part of the country further north. He was not back at Warm Baths until 19th Nov., having just broken up a Commando after a 40-mile chase. Dawkins from the Free State had reached Nylstroom before he started, and while Colenbrander was away he worked down the Eastern side of the line effecting captures. On 23rd Nov., Colenbrander with Dawkins captured Badenhorst and his Commando after several days pursuit and fighting, and, but for the weather, would have secured Beyers who was chased 30 miles. On 13th Dec., the same combination went south-west and brought in more prisoners, but further operations in the bush veldt were now impossible owing to horse-sickness and malaria. Dawkins returned to the Free State on 27th Dec., and Colenbrander to Rustenburg. In his absence, Beyers attacked Pietersburg on 24th January, 1902, and got into the town, but was driven off after a hot fire. One object of this attack was to obtain horses from the Remount Depot and Veterinary hospital. C.V.S.R. Anderson, who was in charge of the hospital, was taken prisoner, but released after a few days. Throughout February Beyers was immobile through horse-sickness, so settled down in the almost inaccessible hills east of Pietersburg.



In March, 1902, he moved north, and attacked a post, Fort Edward, just south of Louis Trichard, and cut it off. Colenbrander was sent up from Krugersdorp to Pietersburg; on arrival he at once marched the 50 miles to Fort Edward, and inflicting severe loss on Beyers relieved the post. Beyers retired to his mountain fastness east of Pietersburg, and in April Colenbrander was strong enough to attempt to deal with him in this difficult position. The remaining period of the war consisted of operations, generally successful, in breaking up this Commando, but peace was proclaimed before Beyers was captured. The work done during the two months of April and May was most exacting and arduous. In the above operations the veterinary officers engaged were C. V. Surgeons W. C. Lowe (now Captain A.V.C.), and G. W. Lee (now Agricultural Dept., S. Africa), both of whom held Commissions as Captains in Kitchener's Fighting Scouts.

#### CAPE COLONY.

##### ATTACK ON CAPE TOWN.

OCTOBER TO DECEMBER, 1901.

It was in October that Maritz's scheme to attack Cape Town took definite shape; coming south by Clanwilliam in the first week of the month he held the garrison of Piquetberg confined to their position, and pushing on south crossed the great Berg River and made for Cape Town. On 11th Oct. he was at Hopefield, only *sixty miles* due north of Cape Town.\* French, who was on the spot, placed the three columns of Wyndham, Capper and Wormald (a new column) obliquely across his path, and Maritz, having made an attack on a squadron of the 16th Lancers, retired north under the pressure of the above columns. These followed him up between the sea and the mountains, and reached Clanwilliam, 80 miles north, on 24th Oct., by which time Maritz had safely retreated to one of his mountain fastnesses west of Van Rhyn's Dorp, 70 miles north of Clanwilliam. Wyndham then went on convoy duty to Calvinia, and Wormald and Capper continued to press north to the Olifant's River. But Maritz having now been joined by Theron took the opportunity of the coast being clear to make once more for Cape Town by the road out of which he had just been forced. On 31st Oct. he was again at Clanwilliam, where he captured and burned a convoy, and moved south. Wormald made a hurried return, doing 65 miles in seventeen hours over the sandy wastes of this low-lying country. Joined by Capper they continued their march south. Wyndham marched from Calvinia to Clanwilliam, 80 miles. On 3rd

Nov. Maritz was once more on the Great Berg River. To interpose between him and Cape Town Kavanagh was brought on 5th Nov. to Moorreesburg. Crabbe arrived in the vicinity on 10th Nov., and in the interval between those two dates Maritz might have reached the Capital. He, however, required horses, arms and ammunition for his rebel recruits, so in order to obtain these he sent Theron against the town of Piquetberg; the garrison drove him off after twenty-four hours fighting. On 9th Nov., Maritz, with his new lieutenant Theron, crossed the river making south, and on the 10th the former reached Darling. Matters were now most critical, but on this day Crabbe's column detained at Piquetberg Road Station, and marched south-west for Malmesbury 20 miles away. Here it again entrained, and on the following morning was south of Mamre. The latter place had already been touched by the patrols of Maritz; it is situated only *30 miles* from Cape Town. Crabbe's position enabled him to close the road to the capital to Maritz, who drew back, was followed north, and driven across the great Berg River on 14th. Kavanagh meanwhile having found Theron, chased him, and Crabbe leaving the further pursuit of Maritz to the columns of Capper and Wormald, now on the great Berg River from Clanwilliam, turned on Theron who was now actually behind him. Theron had his back to the sea, in front of him were Crabbe and Kavanagh, behind them the great Berg River, and at the mouth of that river lay a gun-boat. A gun-boat to deal with a Commando! Theron galloped past both columns, crossed the river 45 miles away from the gun-boat, and escaped north-east.

These operations led to a good deal of marching up and down and across the track lying between the sea and the mountains to the north of the Capital. The attempt on Cape Town produced a heavy draught on the horses, but was of more interest for its surpassing boldness and the immunity Commandos felt even when actually in the lion's jaws. This immunity was due among other causes to their greater mobility; they could always show a clean pair of heels. Our horses still carried too much weight.

After the retirement of Maritz and Theron, Crabbe marched to Lamberts Bay, Kavanagh to Clanwilliam, Wormald to Ceres, Capper remained at Piquetberg. Maritz disappeared until 28th Nov., when he unsuccessfully attacked a small post on the Brak River, 50 miles north-east of Calvinia, in quest of arms, ammunition and remounts. The place was invested for eight days and drew W. Doran and Callwell to its relief from Sutherland 100 miles away.

In consequence of the attempt to enter Cape Town, one of the most remarkable undertakings in block-house lines was now put in hand. It was no less than running a wire fence nearly half way across a sub-continent, *i.e.*, from Lamberts Bay to Victoria West, through practically a desert. The distance was 320 miles, and the work was undertaken from

\* Matters at this time were very serious, and marshal law was proclaimed in the Capital.

The "Times History" Vol. v., p. 541, estimates that at the beginning of November, 1901, there were not more than 1500 men in the field in Cape Colony belonging to the enemy, of whom six-sevenths were rebels. Yet, in order to deal with this handful there were at this time sixteen mobile columns employing 8000 horses, and many thousands of other troops in fixed positions.

both ends early in the month of December. Wormald went to Victoria Road to cover the working party at that end, Crabbe and Wyndham remained at the Lamberts Bay end. These two columns when protecting a convoy to Calvinia on 20th Dec. were sharply attacked, and again on 22nd and 23rd. Smuts, who was now in command of all the forces in Cape Colony, was present and directed the attack which was of the most determined character. The heaviest casualties occurred in the 16th Lancers, but the number of animals lost is unknown.

When Kritzingen re-crossed the Orange River in the middle of August, as narrated at p.169, he proceeded to the Zastron district where he remained resting for four months, surrounded by columns which were gyrating in the neighbourhood, though they never discovered him. During his absence from Cape Colony matters in the midland districts had not flourished, and Smuts urged him to return. The crossing of a river patrolled by columns was evidently a matter of ease to Kritzingen, who, selecting the historic Sand Drift used by De Wet, crossed with 100 men on 14th Dec. He was at once chased by the columns of B. Doran and Bentinck. Kritzingen's men had two or three horses apiece, and there ensued a long and a stern chase south in the direction of the block-housed line running from De Aar to Naauwpoort. On the 16th, at night, this was rushed after cutting the wires, but Kritzingen was wounded and captured together with other prisoners and 80 horses. The main body got through, and making for Hanover and Richmond, under the command of L. Wessels, got safely into the Camdeboo Mountains.

In November, while the stirring events already recorded were occurring close to Cape Town, a further attempt was made to deal with Fouché, in the almost inaccessible regions in the Drakensberg to which he fled when in difficulties. Scobell chased Fouché, Monro dealt with Myburg and Wessels, and their operations were successful in producing attrition, they captured 500 horses belonging to these Commandos, though the bodies remained at large. Myburgh was, however, too hard hit to take the field again. By the end of December the above columns, including a new Colonial Division of Cape Mounted Riflemen under Lukin, had driven these bands from pillar to post, though not across the Orange River.

#### WESTERN TRANSVAAL.

NOVEMBER, 1901, TO JANUARY, 1902.

During this period, the enemy did not offer any considerable opposition. De la Rey was not in evidence, and the operations mainly resolved themselves into minor drives and raids by Methuen and Kekewich in the Klerksdorp area, assisted by a column under Hickie. The quantity of stock captured during this time continued to furnish evidence of the resources of the enemy, and the

difficulties in clearing a country which had been traversed over and over again by British columns.

Both Methuen and Kekewich came from the north for these operations, where we last saw them between the Magaliesberg and Zeerust; on 18th November they were at Klerksdorp, having, of course, had to deal with opposition on the way. A few days before this time Hickie, when a short distance north of Klerksdorp, had suffered a serious loss in a reconnoitring squadron of Imperial Yeomanry, resulting in many casualties and the loss of over eighty horses. On 26th November, Methuen, Kekewich and Hickie moved out west from Klerksdorp, their transport was ambuscaded on the following day and seventy-seven horses lost. Methuen operating by night, continued his journey west, and then turning south-west was back in Klerksdorp, after several encounters; on 4th December he returned with prisoners, 14,000 head of stock, 200 draught animals and supplies.

On 11th December, after a week's rest, both Methuen and Kekewich again went west to the Makwasie Berg, a range of hills north-east of Wolmaranstad, which they searched and raided. After a considerable amount of successful marching and counter-marching they were back in Klerksdorp on 20th with prisoners, 36,000 head of stock, 480 draught animals, and immense supplies of grain. The grain brought in by all raiding columns was only a fraction of that discovered. The tons of food stuffs destroyed were incalculable.

On 28th December both columns again went west from Klerksdorp, once more in the direction of Wolmaranstad, Kekewich blocking the north, while Methuen harried the Makwasie Berg hills from the south. Methuen now hurried west after a Commando, which he subsequently missed, and reached Vryburg on 6th January; Kekewich, losing touch with him, went north, and after a good deal of marching arrived at Ventersdorp on 9th January with 7000 head of stock.

Other operations in the Western Transvaal in December were those prosecuted by Cunningham and Dalzell around the drifts on both sides of the Vaal in the vicinity of Lindeque, Rensburg's Drift, Witbanks, and other places.

On 8th January, Methuen again left Vryburg, and on 14th captured a small convoy in the vicinity of Harts River; another fell to him on 16th, in which his mounted forces rode fifty horses to death, and on 19th he entered Lichtenburg. On 21st he lost seventy-four horses out of a force of 200 sent to capture a supposed small party of the enemy which turned out to be a strong Commando. Methuen remained at Lichtenburg until 26th January when he started for Klerksdorp, where he arrived on 1st February. Kekewich, who had been busy raiding the district and protecting the blockhouse line in January, now on the completion of his section, again took more active measures. On 5th February he had a great success at *Gruisfontein*, a few miles east of Lichtenburg, where he surprised a laager, capturing 131 of the enemy and only losing 28

horses killed, though the range was but a matter of a few yards. On February 21st he returned to Klerkdrorp.

# *EASTERN TRANSVAAL.*

## *BRUCE-HAMILTON'S RAIDS.*

NOVEMBER, 1901, TO FEBRUARY, 1902.

Since last dealing with this theatre of war, important changes had taken place in the physical conditions, to which allusion must be made if the columns' movements are to be understood. The blockhouse lines had been introduced into the interior of the high veldt of the Eastern Transvaal, and had carved it up into areas which more readily lent themselves to treatment. The large protected area, extending from 40 miles east of Pretoria, north and south, to 30 miles east of Heidelberg, was still held by a line of Constabulary posts; Ermelo, in the middle of the high veldt, was connected with Standerton on the south by a blockhouse line, and on the north with Carolina, while the latter was linked up with the Delagoa line at Wonderfontein, a little west of Belfast. The Eastern Transvaal was thus cut in halves by a line of rifle fire over 100 miles in length, and in the middle of this desolate waste, in the very heart of the Eastern Transvaal, a supply depot was established at Ermelo, furnished by convoys which could now travel in safety by the blockhouse line from Standerton to Ermelo. This base in the enemy's country enormously facilitated the work of the columns, for, unwieldy transport could be left behind and columns thereby rendered more mobile, while the distance they had to fall back for food was relatively small. All this has a far greater bearing on the question of horse wastage than might at first sight appear. The shorter the time the troops are from their base the less the horse has to carry. The moment the weight on the back is reduced, the greater the available energy for military purposes. The blockhouse line never perhaps came up to strategical expectations. The enemy regarded it with contempt excepting when he had to cross it, but as a means of carrying war into the interior away from railways, with a minimum of animal labour and a maximum of safety for transport animals, it was superb. None of the work to be related in the present section would have been possible but for the existence of a supply depot on the spot. It only remains to be noticed that another blockhouse line ran from Volksrust in Natal, *via* Wakkerstroom and Piet Retief to the border of Swaziland, a distance of 60 miles, and thus cut off the bottom pocket of the South-Eastern Transvaal from the high veldt. This line also enabled the columns based on it to keep the Field.

The events immediately succeeding Bakenlaagte have already been referred to at p.173. By the middle of November twelve columns with 15,000 horses had been collected to avenge the disaster. Four of these were directly under Bruce Hamilton, eight others were to co-operate with him as required.

Hamilton disposed eight columns along the Wilge River line of Constabulary posts east of Pretoria-Heidelberg. Two hundred miles south-east were Rawlinson's Column at Volksrust, Colville's at Piet Retief, and between these two Plumer at Wakkerstroom. Botha was eighteen miles north of Bethel. The scheme was for Bruce Hamilton to drive the Eastern Transvaal with his column from west to east, and force the retreating burghers against the Swaziland border into the arms of the three columns above referred to as extending to Piet Retief.

The movement began on 16th November, and under cover of it the Constabulary posts were advanced fifteen miles further east, the line of columns advanced on Bethel, and finally on Ermelo, where Hamilton endeavoured to swing his long arms around the enemy, and make them either retire still further east or fight. The columns converged on Ermelo on 3rd December, and on the same day Botha's forces broke back between them, one body going north-west, the other south-west. Consequently, the drive, like so many of its predecessors, was barren. P. Viljoen was in command of the party which broke back north-west, and passed between the columns of Williams and Allenby. Botha guided the south-west party between the columns of Spens and Campbell, and on 3rd December was lying between Bethel and Ermelo, where he was raided at dawn on 4th by Hamilton, and heavy captures effected. Botha, with the bulk of his forces, went south-east, and found himself against Pulteney 750 strong, and Plumer 1000 strong, who had advanced north from Wakkerstroom, but nothing was effected.

On 9th December Hamilton again raided. A thirty-mile march at night brought him to a laager, which he captured; those who escaped were secured after a six-mile gallop; twenty miles back to camp completed a hard day's work. On the 12th the same troops made another successful night raid and covered fifty miles before their return to Ermelo. These are but a few of the night raids during this most productive campaign, and show the improvement which had resulted in the condition of the horses in consequence of food and care. The distances are given in the "Official History," and are, therefore, reliable.

On the 7th December Botha, undeterred by failure, was actually about twenty miles south of Ermelo; Spens was watching the blockhouse line, Standerton-Ermelo, but a short distance away, and on 18th December sent out a force of 200 M.I. to search a farm close to Botha's headquarters. The party was surrounded and lost 130 horses and a sixth of the men. The force under P. Viljoen which escaped north-west had been twice raided at dawn, on 10th and 13th December, by three columns with excellent results. He then put 200 men across the Constabulary line, who entered the "protected" area east of Pretoria and joined Prinsloo, where they remained until the end of the war. Mean-

\* Vol. iv., p. 375.

while, P. Viljoen himself with 300 more men entered the same area towards the end of January, 1902.

Bruce Hamilton continued to march east, and causing the north and south to be blocked, devoted the remainder of the month to night raids, which grew less successful as the enemy became more skilful in dealing with them. At the end of December Botha was still not more than twenty-five miles south-west of Ermelo, while Bruce Hamilton was against the Swazi border. An attempt was therefore made to get between Ermelo and Botha and drive him east towards Bruce Hamilton, Spens, Plumer and Pulteney doing the driving. The movement began on 1st January. On 2nd an advance guard of one of Plumer's Columns was captured; on 3rd December a serious reverse occurred also to one of his advanced patrols, in which the 5th Queensland Imperial Bushmen, 19th Co. I.Y., and two Companies of Regular M.I. were successfully ambushed, and lost heavily in men and all their horses. For three weeks longer Hamilton night-raided from Ermelo, and finally towards the end of January his columns repeated the drive on the Swazi frontier, but the results were small.

Botha, however, with 600 men left the Eastern Transvaal on 15th February for good, and, retiring south-east into the Vryheid district, never again appeared. The blockhouse line south was not tested, as he went round it through Swaziland.

#### NORTH-EAST TRANVAAL.

AUGUST, 1901, TO JANUARY, 1902.

A period of quiescence followed Blood's operations recorded at p. 167; most of the columns taking part in it had by now gone elsewhere, but Blood remained operating to the north of the Delagoa line. A combination of columns, Park, Campbell, and Kitchener, one being a flying column of Cavalry and M.I., made an attack on Muller near Elands River on 16th August, in which a party of the 19th Hussars were ambushed and lost all their horses. Then followed operations around Roos-Senekal and Dullstroom, which yielded little.

From September to December matters were very quiet. B. Viljoen and Muller were both present, but there was ample evidence to show the impossibility of ousting them from their mountain fastnesses; in consequence the people north of Lydenburg enjoyed immunity from British Columns and lived in comfort, for food was plentiful. This area, however, in December became the seat of the Transvaal Government, which broke through from the Eastern Transvaal when Bruce Hamilton began his operations in November. At the time there was only one British Column in this part of the country; it was situated at Lydenburg under Park, another was now sent from Belfast under Urmston to join with Park in tracking the fugitive Government. On 18th December this Column attacked Muller, who was escorting the party, and there

were many casualties, but the Government escaped. B. Viljoen, however, on returning from a visit to the Government was ambuscaded and captured on 25th January. A third column under J. Williams operated with the other two in February, and made a raid on Muller who was still covering the Government, and though many captures were made the governing body escaped and for safety proceeded further north.

With the above operations the military events for 1901 may be considered to have closed. The tedious details of movements we have narrated have been essential to a clear understanding of the question of wear and tear, which must now be taken up.

#### THE HORSE QUESTION IN 1901.

##### STATISTICAL.

Prior to our consideration of the operations of 1901, it was pointed out as an essential to a clear understanding of the wastage occurring in that year, that the war was waged by a force entirely mounted. While clearly pointing out that the excessive wear and tear was not materially due to any shortage of supply, as urged by the "Times History" (p. 147), opportunity was taken to insist that a powerful contributory cause to wastage—apart from want of condition of remounts—was the introduction into the country of 5800 new M.I., 17,600 new Yeomanry, and 6000 new Colonial contingents, to say nothing of the thousands of men raised locally, the exact numbers of whom are unknown. All these were more or less inexperienced in the care and management of horses, and none, excepting those locally raised, had a knowledge of their management on a campaign.

This must be borne in mind in considering the percentage of loss which had been anticipated by the War Office. We have seen, p. 142, that some years before the war occurred, it had been laid down that the wastage on a campaign would be five per cent per month.\* This was far too low, and in the face of the new data available† should have been revised. On the official basis of 5% per month, the number of remounts required monthly for a mounted force of 60,000 men would have been 3000. To what extent this was exceeded is shown in the following table‡ of remounts supplied by Major-General Truman during 1901, and does not include the horses brought to the country by Colonial Contingents and Regular re-inforcements.

\* R.C. Evidence of General Sir Mansfield Clarke, Vol. ii., p. 39.

† "The Loss of Horses in War," see footnote p. 142.

‡ "Court of Enquiry Remounts," Appendix B, p. 311.

NUMBER OF REMOUNT HORSES AND MULES  
SUPPLIED DURING 1901.

	Horses	Mules	Horses Quarterly	Mules
January	8439			
February	6973	2467		
March	9742	2000	25118	4467
April	8067	3098		
May	6684	2399		
June	8717	474	23468	5971
July	11442	3650		
August	9817	998		
September	9596	2852	30855	7500
October	12070	2078		
November	11000	2020		
December	17295	1015	40365	5113

---

119,806      23,051

---

Deduct losses at Sea, 3·63% horses } 4348  
1·56% mules } 359

---

Total 115,458      22,692

---

Add Remounts on the Sea in  
Dec., 1900 (less loss), and  
not included in that year      5800      2950

---

121,258      25,642

---

Deduct Remounts on the Sea  
in Dec., 1901, not received  
31st Dec.      -      10,000      1000

---

Total Remounts from oversea  
received during 1901      -      111,258      24,642

---

The above total only refers to Remounts, and does not include the fresh horses coming into the country with re-inforcements as follows:—

Six Cavalry Regiments      3300 horses  
Colonial Contingents      6300

---

Total, after deducting loss at sea      9250

---

So that, speaking in round numbers, the total number of horses accompanying units, together with Remount horses and mules from oversea, during 1901, is as follows:—

120,500 horses      24,600 mules

Even these gigantic figures do not exhibit the full total. There were purchased in South Africa during 1901\* 92,699 horses and 16,245 mules.

\* R.C. Appendix 38a, p.260. It will be remembered, pp. 123, 132, that in 1899 it was reported that local supply in South Africa was unobtainable. In the two years and three months of the War which this history at present covers, no less than 146,918 horses and 16,245 mules were obtained as Remounts in South Africa!

Adding these to the imported animals we obtain

	Horses	Mules
Total number of new horses and mules obtained from all sources during 1901	213,200	40,845

Incredible as this total seems, it actually does not represent the total number of horses available, for it takes no notice of the tens of thousands of captured animals, very large numbers of which were used by the troops, if only for a day or two, but of which no record can ever be obtained.† A guess might be made as to the number so employed. For instance, at p.160, Major Mann reported 20% were available in the sweeping operations of Elliot's columns, and there is reason to think this estimate was lower than was subsequently obtained. In the absence, however, of reliable data we are compelled to pass over the thousands of horses "picked up" on the veldt, and confine ourselves to the figures above given.

The loss incurred by this immense number of animals, on the basis explained at p.141, is as follows for the year 1901:—

Horses **142,603**      Mules **14,433**

Again, it must be remembered that this was the dead loss only, and does not include the wastage arising from sickness and injury. Nor does it refer to any other animals than those paid for out of the public purse.

We cannot statistically compare the above loss with that occurring during 1900, for it has not been found possible to separate the three months of 1899 from the twelve of 1900 (see p.142). But for the sake of comparison we may place the tables side by side.

	Dead loss in 15 months, Oct., 1899—Dec., 1900.	Dead loss in 12 months, Jan.—Dec., 1901.
Horses	110,028	142,603
Mules	29,113	14,433

There is an increase of 32,500 horses lost during 1901 as compared with the previous fifteen months of the war, while a decrease in deaths of 14,700 mules occurred during 1901, as compared with the earlier period. This decrease may in part be due to the blockhouse lines; on the other hand it may be more apparent than real, for in round numbers only half the number of mules were supplied in 1901 as compared with the period Oct., 1899—Dec., 1900.

Perhaps a better way of visualising the loss is to calculate the *deaths* on a daily basis. For the

† Some idea of the numbers of captured stock may be gained from the fact that the columns which desolated the north-east of the Free State sent into Harrismith alone no less than 58,000 horses, nearly half of which were breeding stock. In these numbers everything was counted but foals. Harrismith was only one of several receiving centres, and the north-east of the Free State was a fraction, though the richest in horses, of the total area which had to be devastated in the Free State and Transvaal.

fifteen months, October, 1899 to December, 1900, these averaged :—

Horses	263 per diem.
Mules	63 " "

For the twelve months January—December, 1901, they averaged :—

Horses	387 per diem.
Mules	40 (nearly) " "

The monthly total wastage varied very little: at the end of the year 1900, it was reported as 25%.\* In April, 1900, it was still 25%.† On 1st March, 1902, the Q.M.G., in his evidence before the *C. of E. Rem.*, Q. 18, stated that the deaths and destructions in veterinary hospitals amounted to 1000 a week, and that this number did not include the mortality with columns [remount depots and farms]. We now know that these three sources produced an additional 1700 deaths a week.

The Q.M.G. added that there were approximately 20,000 horses on the sick list, but these numbers did not include the thousands recuperating on farms.‡

The dead loss of horses being 5.58% per month, and the general rate of wastage 25% per month, leaves 19.42% to represent the sick and debilitated. The sick, debilitated and weary therefore amounted to 41,400 horses a month, of which 20,000 or more went to hospital, and 21,000 or less to debility farms, or back to Remount Depots.

Briefly re-stating all the previous facts, and expressing them in round numbers, and in terms which readily appeal to the imagination, the mean loss in horses and mules every month during the year 1901 was as follows :—

		Monthly
Deaths and Destructions	Horses	11,600
	Mules	1200
Sick, debilitated and weary		41,400
Total Wastage		54,200

This is a truly appalling loss, the like of which had never previously occurred in an army subsequently victorious. We must now in general terms endeavour to trace its cause, and observe its subsequent effect upon the veterinary service. Before doing so, it will be convenient, at the risk of some little reiteration, to look at those losses on a large scale which have been recorded during the operations of the year under review; also those of certain individual units not previously specified in the text.

\* Col. 963, Cable 73.

† *C. of E. Rem. Appendix F*, p. 368.

‡ As a matter of fact the number of sick in hospital was frequently higher than the estimate made by the Q.M.G. In September and October, 1901, they stood in round numbers as follows :—

Week ending 25th Sept.,	remaining in Hospital,	26,500
" 2nd Oct.,	"	26,000
" 9th "	"	27,000
" 17th "	"	26,000
" 24th "	"	27,900

### CAUSES OF WASTAGE.

Examples of the excessive wear and tear of horses during the year 1901 are recorded in some of the Papers presented to Parliament. In Cd. 963, Cable 79, it is stated under date of 21st March, 1901, that the number of horses issued during the month of January to the troops operating in Cape Colony was no less than 12,000. The same Cable also informs us that the loss in horses of the various Columns in repelling in February the invasion of De Wet amounted to 5000.

French's operations in the Eastern Transvaal had used up 2,000 horses by the middle of March. We know that many of these died from horse sickness, and the Cable informs us that during the month of February alone, the loss in the Transvaal, mainly from this disease, exceeded 3000 horses!

In April, 1901, the officer in charge of Remounts, South Africa, informed the War Office that the wastage on the 55,000 mounted troops then in the Field equalled 25%. *C. of E. Rem.*, Appendix F, p. 368.

The Quartermaster-General, in his evidence before the *C. of E. Rem.*, gave an example of horse wastage in a regiment of Mounted Infantry. The original strength of the regiment was 492; in five months it received 556 fresh horses, so that the loss was over 100% in that short time. The strength of the regiment on the 19th September, 1901, was 391, and the following shows the effective state of the horses.

Fit, 13; fit in ten days, 30=43.

Unfit, 34; in hospital, 208 (sore backs and mange); destroyed, 106=348.

Out of 391 horses only 43 could be classed as fit, and this was the balance remaining of a total number of 1048 received during five months!

A witness before the *C. of E. Rem.*, Q. 6443, stated that on 12th May, 1901, the Metropolitan Mounted Rifles received 610 horses. They started on their march to Orange River, 80 miles away, and by the time they got there most of the men were dismounted. The witness did not tell the Court that these men, many of whom could not even put on a saddle or bridle, were mounted principally on half-broken, semi-wild horses, that had just been handled and backed, and but little more. Before the regiment completed its first march of 14 miles, the whole of their spare horses were loose, men by scores were marching on foot, while the track over which the regiment passed was littered with accoutrements of every description, including field glasses and rifles.

The previous witness, Q. 6445, said that two companies of Yeomanry, which were only performing outpost and convoy duty around De Aar, received 600 horses in two months. (The full strength of a Company of Yeomanry if every man was in the ranks is only 150. Full strength, however, is never realised in war, and it is unlikely that these two Companies possessed more than 100 men or so apiece).



In the *C. of E. Rem. Appendix F*, p. 312, a table of losses is quoted in a letter to the Inspector-General of Remounts showing the wastage in one month in General Elliot's Division which left Glen for Harrismith on 18th August, 1901, see p. 173. In that short time, out of a strength of 2936 horses no less than 969, or roughly one-third of the strength, had been lost.

The "Times History" grapples with the question of wastage during 1901 in its usual vigorous manner, and, having dealt with the monthly importation, adds:—

"Even this enormous supply was insufficient. Kitchener had failed to bestow the attention it deserved upon this important matter. Ground lost was never wholly regained. Quantities of animals were still thrown prematurely into the field, unfit and unacclimatised, quickly to succumb to the rigours of campaigning. The sickening waste of horseflesh which ensued was partly, of course, a corollary to the policy of tossing half-trained horsemen into mobile columns; but there was also much administrative blundering and much inexcusable neglect in the field. The remount camps and rest camps were not properly inspected, and it was not until November that Kitchener took effectual steps to remedy this defect. At the same time it is but fair to say that these camps—so constant and pressing were the demands for mounts—were never given a fair chance of becoming efficient and serviceable. In the field, even when the troops had become veterans, the consumption of horses was far too great. The regular troops were the best horsemasters and the Colonials the worst, but the standard throughout was not high. At one time, in imitation of the Boer practice, Kitchener tried the experiment of furnishing Columns with a quantity of spare horses. The result was only to encourage waste."

It is unlikely that those now living will ever know the real policy which lay at the root of the extravagant waste of horses, but so far as a close study of available material permits, it appears to have been based upon a misapprehension of the enemy's spirit of resistance. A misapprehension deeply rooted from the first days of the campaign and never, we believe, extinguished. It seems to have been considered that the terror produced by columns sweeping over the country, effecting captures, devastating property, laying waste the land, and removing families to concentration camps, would bring the enemy to his knees. With a nation less adamant, and less saturated with the religious fanaticism of being a chosen people, it is most likely that one, or at the outside two sweeping operations of this nature would have sufficed as an object lesson. Had such been the case the sacrifice of unconditioned horses would have been justified in bringing the war to a speedy termination. But the results of these first operations pointed the other way. Converting their land and houses into a wilderness only had the effect of stiffening resistance; removing their families to concentration camps, feeding them, caring for and educating their children, placed the Burgher on a far stronger war footing. Olive-branch proclamations were regarded as indications of weakness, and the bearers of them to the commandos were tried and remorselessly shot.

The enemy, through training and confidence, passed from the stage of defence to that of attack, and not only had already carried the war into a British Colony but maintained it there up to the last day of the campaign.

The loss of unfit horses early in 1901 would never have caused a second's consideration had the military policy adopted in January in the Eastern Transvaal been a success, for the end would have justified the means, and the means appeared at that time to be such as would attain the object aimed at. But a sacrifice which is justifiable as a temporary measure may be unjustifiable for permanent adoption, and we entirely agree with the *Times'* criticism—that the waste of horses was the result of employing unfit animals for operations demanding the highest physical condition, though we are unable to agree that this was in any way incurred through a lack in the purchasing of horses. See p. 148.

The *Times* does not allude to the other important factor involved in this question, i.e., the food supply. It is almost beyond belief that the daily ration scale consisted of only 10 lb. corn, and whatever else might be picked up from farms or by grazing! Of hay there was none excepting when near the line of rail, while grazing was variable and depended upon the season, the work in hand, and above all the column commander. Here lies the kernel of the whole question; horses cannot be got into condition without food. Even—as we venture to think—had it been possible to delay active hostilities for a few weeks so as to begin with animals fit for work, such fitness could only be maintained by a sufficient food supply, and from the first day of the campaign to the last this was not forthcoming.

The grazing frequently suffered at our own hands, for some columns destroyed the grass by burning, and left nothing but the blackened stones for those who had to follow them. But apart from this, it is a remarkable fact that horses should have been underfed at a time when a large army was engaged for a whole year laying waste an immense country, destroying thousands of tons of grain, and thousands of acres of crops. We never succeeded

\* This scale of grain ration is the same as that given to troop horses at home when leading a life of comparative idleness, and two pounds less than that given them when on peace manoeuvres.

Nowhere in the Remount Report on the War is there a word of protest against this semi-starvation scale of diet. See also p. 135.

The Report of the Royal Commission is also silent; it refers, p. 117, to horses and mules being "often on short rations," but it was evidently ignorant of the scale of grain rations laid down. It is impossible to conceive how such a highly technical enquiry could be carried out without expert knowledge; the interest of the horses should accordingly have been represented on the Commission, and evidence taken from veterinary officers who had served at the seat of war.

generally in learning to live on the country, or turning to our own advantage such supplies as it possessed. Of course, much was hidden away or the enemy could never have kept the field, while transport for discovered supplies was not always available. But making every allowance for these, we are not an army of thrift and providence, and it was always easier to destroy supplies by burning, or even turning them into a river,\* than to trouble to bring them in. This propensity for destruction was also stimulated by the military programme which enjoined it as part of a regrettable necessity.

Briefly, had we conditioned and fed our horses well, the miserable and shameful toll of waste during the year 1901 would never have occurred. It would then have been possible to deal seriously with horse wastage due to defective or bad management.

It appears to us that the months of March and April might have been devoted to getting horses into condition and putting flesh on them, though whether it was possible to stay military operations for this purpose is a question obviously outside this history. With two months, good feeding and steady work these animals would have been able to take the field with a monthly wastage which, at the outside, would not have exceeded 8%, as against the 25% actually occurring.† Two-thirds of the waste would have been controlled, and the proportion of remounts required correspondingly reduced. To replace the 8% monthly, 4800 remounts would always have required to be under training, a very large number, but by no means impossible when spread over the existing large depots. These horses would have needed 2500 men to train and look after them, but in this matter we were exceptionally well situated in South Africa, as the Kaffir is both fond of horses and can be made an excellent horseman. Thus, without drawing a single soldier from the fighting line, it would have been possible—given the above two months—to have “conditioned” all the horses required and sent them out fit for work. The training referred to is not, of course, the methods of the “High School,” but common-sense hardening of muscles and tendons, expansion of lungs, and adjustment of circulation, together with hardening and conditioning of backs, without which no horse untrained to the saddle is fit to carry a man.

\* The 60th Company of I. Y. was in April 1901, engaged in clearing operations in the South East District of the Orange Free State. A diary kept by one of its number reads:—“To Wepener—emptying large quantities of grain into the Caledon River. . . .” *Rhodesia and After*.—S. H. Gilbert, 1901.

† Into the same river a General was prepared to throw 22,000 sheep he could not drive further, unless satisfactory means could be found for taking them off his hands.

† This estimate would be higher for troops operating in notoriously unhealthy areas during the “horse sickness” season.

We have stated the outside rate of wastage, and the outside requirements, for it will not be forgotten that of the 8% normal wastage monthly, at least 4% would have been returned to the ranks, provided efficient means for collecting the horse *débris* of columns existed, and already at the beginning of 1901 the principles of such a scheme received official acknowledgment.

None of the earlier operations in the Transvaal and Orange Free State during 1901 were such as should not have been capable of being performed by horses in good condition, well fed and well cared for. It was not until towards the end of the year that long daily marches of forty, fifty, or even sixty miles were generally demanded. In the Cape operations, long and rapid marches were characteristic from the beginning, and the sacrifices in that Colony were on a totally different plane from those elsewhere. In the Cape the object was to hustle the roving bands out of the country, no matter at what cost. In the Transvaal and Free State it was not a question of driving them out of the country but hemming them in, and endeavouring to compel them to coalesce and fight; to drive them out of the country was the last thing desired. So that the conditions leading to the waste of horses in Cape Colony was not on all fours with those in the Free State and Transvaal.

We cannot leave the question of the employment of unfit horses for war in 1901, without reference to the official correspondence on the subject. All the following cables have been published in Parliamentary Paper Cd. 963, 1902.

The earliest is cable No. 74 from Lord Roberts (then at the War Office) to Lord Kitchener, in which he says:—

“The heavy wastage in horses is due, as we both know, to their being worked before they are fit. Would it be possible to commandeer, under Martial Law, in the districts of Cape Colony sufficient to enable the remounts to get a month's rest and exercise before being put in the ranks?”

In reply to this on 10th January, Lord Kitchener stated he was getting as many as possible in Cape Colony, and would do his best to give the remounts the rest required.

From the Secretary of State for War to Lord Kitchener, Cable 96, dated 21st November, 1901.

“Reports reach me from many quarters that the remount system is still unsatisfactory, and that unconditioned horses are being issued to columns and sent at once on long treks. Your telegram 20th September appeared to show there was then a proper margin. Cannot an officer of sufficient standing be appointed who would refuse to send remounts up country till fit? Surely it would be better to rest some columns for a time than to waste horses.”

To this Lord Kitchener replied on 25th November, 1901, Cable 97:—

"Your telegram 21st November. I am not thoroughly satisfied with result of remount work, though Birkbeck, who is in charge, is not wanting in energy. Could you send out Inspector General of Remounts to inspect, and let him bring with him some thoroughly practical officer or official to look after recovery of partly exhausted horses on hired farms.

With reference to your question, till the recent operations in Natal, which drew heavily on remounts, the best horses arriving had average of three weeks at ports, and weak or in any way unfit horses, longer. I hope I shall soon be able to return to this scale of rest. . . ."

The Secretary of State replied on the following day, Cable 98:—

"The question of resting horses seems to us of the first importance. We will certainly send officers to help you. But no change of hand will be effective unless you lay it down authoritatively that columns must rest till horses are in proper condition. We cannot continue indefinitely to send 10,000 to 12,000 remounts per month to be used up by column commanders in a few days."

To this cable no reply is published. A few days later, the 6th December, 1901, Lord Roberts, cabling from the War Office, No. 100, says:—

"Pray give the horses ample rest on landing, and impress on all Commanding Officers the necessity for animals being taken the greatest care of. The men should never be on the horses' backs when it is possible for them to be on foot."

On the following day, 7th December, the Secretary of State cabled as follows, No. 101:—

" . . . Lord Roberts is sending Lord Downe and Colonel Hotham to take charge of Remounts at the base in conjunction with Colonel Birkbeck, whose good work is fully appreciated. Several reports have recently reached me of horses from overseas being sent up country and sent on trek unshod, and consequently becoming unserviceable in two or three days. Cannot you issue an absolute prohibition of such practice? "

To this, Lord Kitchener replied on 8th December, 1901, Cable 102:—

"Your telegram of 7th December, I hope that Lord Downe and Colonel Hotham are being sent out only on a tour of inspection, and not in any way to interfere with work of the Remount Department under Birkbeck, with which I am quite satisfied. Horses are sent up from the coast ports to the large remount depots such as Mooi River, Elandsfontein, Queenstown, etc., where they are invariably shod before issue. . . ."

The Inspector-General of Remounts at the War Office now for the first time appears officially in connection with South African organisation, and on 9th December, 1901, sent the following cable (103) to Colonel Birkbeck:—

"Be prepared to keep 16,000 horses at base depots for one month. How are you off for 'corrals,' also for horse-keepers, native and European, respectively."

On 15th December, 1901, Cable 107, Lord Kitchener cabled to the Secretary of State for an additional establishment for three more remount depots, manned entirely by natives of India, and then adds:—

"A regular establishment is also considered advisable to ride these horses while at the remount depots, so that they

might get well conditioned and in regular work before issue to columns. I would suggest that for this purpose 500 Sowars of the native Cavalry, with saddlery complete, should be sent over here."

Beyond this date the cables are not published, but it is evident that throughout the year the question of unfit horses being issued to columns was agitating the minds at the War Office. Reading between the lines of the correspondence quoted, and the evidence taken before the Royal Commission, and Court of Enquiry on Remounts, it was apparently considered that an officer of the rank of Major-General was necessary at the base, in order to enforce the observance of a time limit.\* What a dual control of operations would have led to, does not require any deep powers of penetration. The question belonged to Lord Kitchener only. His cables show that he recognised that some period between landing and work was required, and when he mentions three weeks he doubtless gave the maximum which the military position permitted.

Three weeks represent about one third of the time these horses required before joining columns, not for rest, as the cables indicate, but for work. No machinery existed for conditioning riding horses. Captain Bessie, A.V.D., with the remount department had, as we have seen, introduced into the depot at Bloemfontein a means of exercising masses of animals, and materially conditioning those required for draught purposes, but the conditioning of saddle horses cannot be effected entirely by this means, though it may largely be helped. A riding horse requires to have a weight on his back, *he cannot be conditioned without it*, for part of his training consists in conditioning the muscles of the back and loins, and any horse not so conditioned is liable to fail in the back within a day or two. The symptoms are those of partial paralysis of the hind quarters, and the number of remounts abandoned or destroyed from this cause was astonishing.

The question of conditioning horses entirely centres around the military situation. We have seen from our history that it grew progressively worse, and that the number of mounted troops had to be increased, so that supposing hostilities had been partly suspended during March and April to admit of the conditioning of animals then standing at a strength of 156,000, the difficulties would have again arisen when the force went up to 244,000, as it did in September. Nevertheless, the opinion of a layman in these matters, if he can be permitted to hold an opinion on such a highly technical question, is that 156,000 well-conditioned and well-fed animals would not have necessitated the great

\* This is what the Government said on the matter in the House of Commons:—

"The Government are sending out horses so as to get in advance of requirements, and give the animals a month's rest before going into the field. A general officer had been lately sent out to take command of this department alone, and to see that no horse was sent up country that was not thoroughly fit for the purpose."—*Times* Report, 1st February, 1902.

increase later in the year, for every month the enemy was losing men,\* and had no further resources, excepting in the Cape operations, for recruiting purposes. We hold the opinion that it was our relative immobility which encouraged the resistance of the enemy, and that consequently a smaller body of fit and well-fed horses would have accomplished more than the vast hordes of unfit, unacclimatised and underfed animals. It may be said than an allowance of fourteen pounds of grain daily (a minimum for large horses) would have been impossible from a supply point of view. If so, we had better give up making war with mounted forces. But as a fact it would not have been so; 75,000 horses on 10lb. corn would have allowed 50,000 horses a daily ration of 15lb. Can anyone doubt, after the account which has been given of the work they were called upon to perform, which of these bodies would have secured the best tactical results?

Neither the regimental officers nor veterinary service are to blame for the low ration scale. We started the campaign badly in the matter of food (p.14), and we maintained throughout the war a position which was indefensible from the horse-master's point of view. We actually allowed to the horses in this campaign 2lb. less of grain than is given to animals during peace manœuvres! A soldier's horse, as well as the soldier himself, requires to be well fed in war, and any cheeseparing policy at such a time is suicidal.†

Throughout the whole length of the campaign it is difficult to call to mind a single instance in which we caught up, the retreating enemy. Bothaville (p.109) may be cited as an example, or the attack on De Wet by Plumer when the former was crossing the Kimberley line during his attempted invasion of Cape Colony (p.155). But speaking generally the enemy were safe from capture, which no one knew better than they. It ought not to have been so, further, it would not have been the case had the horses been highly fed. If the fuel is not available the machinery stops.

\* See Appendix, "Official History,"

† The Campaign in the Crimea is a classical example which one would have thought ought never to have been forgotten. Six thousand pack horses were at Varna awaiting embarkation for the Crimea, they were subsequently sent to Constantinople to form a reserve depot for animals. The Commissariat Department, "no doubt remembering their instructions to 'cut things fine,'" kept these animals on half rations. The Commissary-General stated before the Royal Commission that "the animals were not worth their keep." When this reserve arrived in the Crimea, "thanks to the half-ration régime at Constantinople, 'they lost no time in dying.'"

After 14th November no hay was issued, and only 2½ lb. of barley per horse. "Enormous quantities of forage were available a few days' sail distant." A hydraulic press put up at Constantinople to press hay for Balaclava, was erected 15 miles away from the hay.

See "Army Administration in the Crimea," Captain R. D. Barbor, A.S.C., *Journal of the Royal United Service Institution*, July, 1913.

### THE CONTROL OF WASTAGE.

There are a sufficient number of causes of horse wastage on service without increasing them by semi-starvation. Losses would have been experienced had a good corn ration been given, but such losses would have been due to causes incidental to war—hard work and exposure—and they would have been only one-third of those actually experienced. The moral effect upon those charged with the care of partly starved horses is largely responsible for much of the neglect and indifference in management exhibited by the regular troops—artillery excepted. When officers and men were called upon to do the impossible with horses, a spirit of indifference and want of care was soon accentuated, fostered by the fact that fresh animals awaited them. That the large number of available animals had this demoralizing effect is neither excuse nor condonation, but the fact was patent to everyone. The rank and file are at all times difficult to interest in the welfare of their animals (artillery excepted), and it becomes absolutely non-existent when a fresh horse is received every few days. We are not here, however, dealing with the want of horse-mastership, that will be considered as a general question later, but only attempting to show how far-reaching was the effect of the deplorable policy of underfeeding animals in the field.

Another question connected with the series of cables printed at p.188 must now be looked at. Cable 96 of 21st Nov. from the Secretary of State, says that the *Remount System* appears unsatisfactory, and proposes a remedy. In the reply Cable, No. 97, Lord Kitchener expresses himself as not thoroughly satisfied with the remount work, and proposes a remedy, *i.e.*, the Inspector-General of Remounts to inspect, and a thoroughly practical officer or official to look after the debility cases on the various farms. We are not at present concerned with the latter question, which deals with the recuperation of war-worn horses. The primary matter in Cable 96 refers to unconditioned horses being sent into the Field as soon as they were landed, and to meet this it is asked that the Inspector-General of Remounts at the War Office should come out and inspect. Cable 101 would seem to show that the Inspector-General of Remounts could not be spared, and a Major-General of Cavalry and a Colonel of Artillery were accordingly to be sent out "to take charge of remounts at the base." This was not the scheme proposed in Cable 97; accordingly Cable 102 is sent to the War Office; this is difficult to reconcile with Cable 97 so far as the general remount work is concerned. It makes clear, however, that the officers being sent from home were not to take charge of Remounts at the base, but were only to be regarded as on a tour of inspection and were not to interfere.

Now, these Cables have a far deeper interest for the Veterinary Service than lies on their surface. Lord Kitchener's Cable, No. 97, of 25th Nov., 1901,

makes a distinct statement of dissatisfaction with the result of the remount work only, and the reply to this by War Office Cable 98, of 26th Nov., promises the remedies he has asked for. On 1st Dec., 1901, the Chief of the Staff in South Africa published an Order—to be quoted in full presently—appointing Colonel Long Inspector of Veterinary Hospitals, Remount Depots, Farms and Mobile Columns.

The effect of this Order, so far as the Veterinary Service was concerned, will be considered later; what we are anxious to do here is to trace the connection between Colonel Long's appointment and Cables 97 and 98 of the 25th and 26th November. Here we are assisted by a private letter from Colonel Birkbeck to the Remount Department, War Office, which has been published in Appendix F to the Court of Enquiry on Army Remounts.

The letter is dated 27th November, 1901: . . .

"—\* has detailed—\* to make a searching inspection of all our depots and farms and of the veterinary hospitals, and to report to him exhaustively on the whole subject. Personally, I am very glad, because I think—is a good chap and knows a horse, and I do not think he will find anything wrong."

This letter shows that on the 27th November Lord Kitchener had decided to cause the inspection work of remount depots and farms to be carried out by an officer of his own selection. Curiously enough the above letter intimated that not only are remount depôts and farms to be inspected, *but also Veterinary Hospitals*. There is nothing in the published telegrams which passed between Lord Kitchener and the War Office to suggest that he was dissatisfied with the way the veterinary hospitals in the country were being conducted. His complaint is against remounts, though subsequently even this appears to have been withdrawn. We are now confronted with the remarkable fact that a purely technical institution of another branch of the service, possessing its own departmental head, and with which no fault has been found, is to be included within the scope of an inspection duty connected with the organisation of remount management, and carried out by a layman. We shall look at the qualifications of the inspector so appointed, but in the first instance we must endeavour to ascertain how it was that the veterinary service became included in the pilloried remount service.

Earlier in this history, p. 134, we drew attention to a Parliamentary Paper bearing the number Cd. 963, published in 1902. This paper contains several distinct matters:—

- (1) A report by Lieut.-Colonel Birkbeck, dated June, 1900, dealing with the organisation of the Remount Department on active service, and the supply and issue of animals in the field.

- (2) A report from the principal Veterinary Officer, Pretoria, dated July, 1900, dealing with the veterinary aspect of the campaign up to date.

- (3) Questions in regard to Remounts, addressed by the Quartermaster-General to officers employed in remount operations in South Africa, for the period ending December, 1900. Replies to the above questions are furnished by Lieut.-Col. Birkbeck, dated 22nd December, 1900; the General Officer Commanding the Line of Communication in Natal, and Colonel C. H. Bridge, C.B., C.M.G. (Director of Transport in South Africa from October, 1899 to January, 1900).

- (4) Statistical tables dealing with Remounts.

- (5) Telegrams and extracts from telegrams despatched and received between June 1899 and January 22nd, 1902, in reference to the purchase of Remounts.

The report which we have numbered (1) above, was written during the month following Lord Roberts' capture of Pretoria. We have already at pp. 114, 134, drawn attention to it in connection with the question which it raised of veterinary hospitals; we have now to look at it in connection with an adverse criticism it contains on the veterinary service, together with a suggested remedy.\* This is what Colonel Birkbeck says in his report of June, 1900, on the relationship of the Veterinary and Remount Services:—

"*Relation of Veterinary and Remount Departments.* There should, I think, be one head to control the general organisation of both Veterinary and Remount Departments, I mean as regards the location of the veterinary field hospital, and the disposal of animals returned from the front.

In this connection the two services are so closely allied that it is difficult to draw the line of demarcation between their spheres of action. Thus, veterinary field hospitals, sick horse farms, and remount depôts, are better controlled by one and the same head, who should be responsible that useless animals are not kept and fed at the advanced depôts.

There is a natural reluctance to destroy the wrecks of fine animals which it is difficult for the professional veterinary enthusiast to overcome, and such animals, though useless for the present campaign, are apt to be kept in veterinary field hospitals eating rations which are more valuable the further they are brought from the coast.

By all means let the technical work and distribution of veterinary stores be carried out by the Principal Veterinary Officer, *but it requires a Staff Officer of wider training—if I may be excused for saying so—than a Departmental Officer is likely to possess, to direct the general policy of the veterinary operations.*"†

We now know that as early as June, 1900, the Assist. Inspector of Remounts in South Africa was satisfied that the Remount and Veterinary Services should be under and controlled by the same head. We acquit Lieut.-Colonel Birkbeck of any attempt

\* It is necessary to explain that when 1 and 2 were written the campaign was regarded as over, and reports from heads of departments were accordingly called for. Parliamentary Paper 963 is merely a mixture of various questions affecting horses, occurring at widely different periods of the war.

† The italics are ours.

\* Blank in the original.

in this report to take the veterinary crown off Colonel Matthews and place it on his own head, for the reason that when this report was written the war was considered at an end. Nevertheless, as a graduate of the Staff College,\* he would naturally consider that he was not devoid of the "wider training" that the Departmental Officer was never "likely to possess," and qualified by his then limited experience of this service in the Field, to lay down regulations for its guidance and undertake its management. He got others to agree with him: this necessitates an examination of Paper 3, as classified above.

The questions regarding Remounts (No. 3 above) are addressed by the Quartermaster-General of the Army to officers employed in South Africa, and are fourteen in number. In none of these is the Veterinary Service alluded to: the Quartermaster-General regarded the Remount and Veterinary Services as quite distinct,† and the fourteen practical questions to which replies are desired, do not in any way touch upon veterinary matters. Colonel Birkbeck, who again appears, evidently thought otherwise, and in reply to the question "Can the organisation of remount work ‡ on the lines of communication be

improved, and, if so, in what way?" replies as follows:—

"I answer this question on the assumption that the organisation referred to is that laid down in the Yellow Book,\* which has not been strictly followed in this campaign. The Yellow Book directs that there shall be a Director of Transport who shall control both the Remount and Veterinary Services. In South Africa he controls neither, rightly, I think, but I do believe that the efficiency of the Veterinary Department would be increased and its general policy controlled by the Assist. Adjutant-General of Remounts † indicated below." (A diagram not here reproduced).

"The Assist. Adjutant-General of Remounts to be constantly up and down the lines, in touch through his Deputy Assist. Adjutant-Generals, and personally with headquarters, base, sections of the lines of communication and Generals of districts, detailed columns. (The latter part of this sentence is not very clear, some word may have been left out). He can thus anticipate requirements and mass his animals where they are likely to be required, the Assist. Adjutant of Remounts should also control the general policy of Veterinary Department, making it fit in with Remount Depots." ‡

The above reply is not without a suspicion of humour. He personally objects to his department being under the Director of Transport, but urges twice, what he has never been asked, that the Veterinary Department shall be under Remounts, and its policy controlled and made to fit in with that of the Remount Department,

Another reply to the Quartermaster-General's questions must be reproduced, it is furnished by Colonel Bridge, late Director of Transport in South Africa. He selects the same question as Colonel Birkbeck for introducing his views on the Veterinary Service, which as above pointed out was not the subject of inquiry.

Colonel Bridge says, p. 28:—

"The sick-horse depôts should be under the control of the head of the Remount Department."

The Quartermaster-General asked no questions about sick-horse depôts. Had he so done, it would have given the General Officer Commanding Lines of Communication, Natal, an opportunity of expressing his views on the Transport-Remount control of the Veterinary Service, to which he was entirely opposed. He regarded these services as distinct, and that each should be under its own departmental head, who should be responsible to the General of Communications.

In these extracts from the replies to the Quartermaster General's questions we miss the views of the late Director of Supplies. Not being connected with Remount work, the questions were not sent to him, but nevertheless we are not without his opinion. In his examination before the Royal Commission he presented a memorandum || on many subjects, some of which were absolutely alien to his department, and among the latter were

\* The Staff College gives a higher professional education. After its theoretical course of two years or so, an infantry officer by going for two months to a battery of Artillery learns about horses, guns, ammunition, and interior economy: two months with Cavalry teaches him what other men spend a life-time in acquiring, and so on. It is, therefore, easy to understand that looking on at veterinary work for six months would, *a priori*, render a staff college graduate a veterinary expert.

† Evidence of Quartermaster-General before the Royal Commission on the War. Opening statement.

Q. 2358. As regards the Army Veterinary Department, which was placed under the Quartermaster-General in November, 1901, the best evidence will be given by the late Director-General Veterinary-Colonel Duck.

Q. 2359. Will that be conveniently taken without the Remount Department? A. It is entirely distinct; the administration of the Department is entirely distinct.

Q. 2360. But both deal with horses? A. He provides the medical attendance for horses, but he would provide for the medical attendance for the Remount Department in the same way as he would for a mounted unit.

Attention is drawn to question 2360. The Chairman could not understand that the department dealing with the remount side of the horse question was not also the same as that dealing with the treatment of horses when sick. Such reasoning should logically place the Recruiting and Medical services of the army under one head. Curiously enough, much later in the enquiry, Lord Esher is surprised to learn that the Intelligence Division of the War Office should be expected to furnish information as to the capabilities of foreign countries to supply horses, and in Q. 12,982 exclaims: Why the Intelligence Department? A. Because it is in close touch with all the Embassies, and it is the Department which procures information on every point connected with foreign countries. Q. 12,983. They are not experts? A. They are not experts.

Did Lord Esher consider the Remount Department experts in veterinary matters? The answer is furnished by the recommendations of a Committee on War Office re-organisation, of which he was President, which placed the Veterinary Service under the Remount Department.

‡ The italics are ours.

\* See this History, p. 114.

† The italics are ours.

‡ Idem.

|| See R. C. Appendix 35, p. 345.



his own views on Veterinary Hospitals and who should control them. The interest he has taken in the organisation of the Veterinary Service is, to say the least, remarkable.\*

It would probably strike him as astonishing if an official memorandum had been prepared by an officer of the Veterinary Service for technical evidence before a Royal Commission, in which he ventured to criticise the organisation of the Supply Service in war, and lay down authoritatively the system by which in future it was to be conducted. Yet a parallel course has been pursued by the late Director of Supplies.

This is what he says in the memorandum referred to above:—

"SICK HORSE DEPOTS."

"Sick horse depots should be directly under the remount administration. . . ."

The remaining paragraphs of his remarks will be found at p. 135.† Incidentally it may be mentioned that in the above memorandum he proposes that the duties of the Supply and Transport Services shall embrace not only supplies and transport, but disembarkation, railways, including construction, Remounts and Veterinary Service, the latter being under the former.

Among the witnesses examined by the Royal Commission was the late Director of the Remount Department in India, Colonel Deane. He made a tour of the seat of war in the capacity of a Staff Officer of Yeomanry and was brought much in contact with the Remount operations and its Assistant Inspector. His evidence is very interesting as being that of an expert trained in a country where war is a chronic condition. The only part of it we intend to deal with here, bears on the subject at present under examination.

In Q. 13,071 he says "Then again, a point which struck me, if I may refer to it, was that the English War Tables show that the arrangements of Remount officers in the field are in charge of the Director of Transport who has also control of the Veterinary Service. As a matter of fact, he was in charge of neither one nor the other, and very rightly, because it was impossible for him to control both in addition to the vast transport service. The control should have been placed in the hands of the Inspector or Director of the Remount Department, and I think he should not have been under the rank of a Major-General."

This witness, with the authority attached to his late position, was another means of drawing the attention of the Royal Commission to the benefits to be derived by subordinating veterinary work to remount control in the manner, as he himself expresses it,‡ "so well suggested by Colonel Birkbeck."||

It would certainly appear from the evidence quoted that no opportunity was missed for securing

a subordinate position being assigned to the Veterinary Service.

We are now in a position to understand the appointment of Colonel Long as Inspector of Veterinary Hospitals. Lord Kitchener was committed by his cable 97, to take steps to remedy his dissatisfaction with the Remount Department, but it is evident from cable 102 that he did not approve of the appointment made by the War Office, which would in effect have tied his hands. The next best step was to make an appointment of his own, and he selected Colonel Long. There can be little doubt that the views of Colonel Birkbeck, so clearly expressed in his reports of June and December, 1900, were placed before Lord Kitchener.\* Representations of the difficulty in extracting cases from hospital, † of the retention under treatment of horses not considered by the Inspector of Remounts as offering a prospect of recovery, ‡ and of the reported inability of the veterinary department to understand staff requirements(p.191), would appear to have influenced him in making a combatant officer an Inspector of Veterinary Hospitals. The Remount Service thereby dragged down with it the only branch which had hitherto enabled it to keep afloat, or at any time to gain credit for it.||

It may be urged by some that this appointment was rendered necessary by the inability of the Veterinary Service to manage its own affairs. This history shows that it could not manage its affairs without hospitals or personnel, neither of which existed until borrowed from India. The majority of its officers had then to learn the work as they were civilians without military training; there were no administrative officers for purely hospital service, and consequently no one specially told off to teach them.\*\* They next had to train the subordinate personnel in hospital duties, and in spite of these four extraordinary sources of weakness no reproach, in the correspondence we have examined, has been urged against veterinary hospitals, other than that they did not destroy a sufficient number of horses to keep the forage bill down, or send out unfit animals for duty. Nevertheless, a real reproach existed. They were congested to an extent which no one could have anticipated, owing to the enormous amount of inefficiency which existed. To this were added the inability to obtain either the necessary amount of labour for looking after the animals, or a large enough staff of skilled subordinates to carry out the treatment. For none of these defects could the Veterinary Service be held responsible.

\* See Colonel Birkbeck's letter dated 27th November, 1901, reproduced at p. 191, written some few days before the order on the subject was published.

† See this history, p. 139.

‡ See page 134.

|| See this History, p. 129.

\*\* See p. 119.

\* See p. 135.

† This History.

‡ R. C. Appendix F, p. 587.

|| It will further be observed that the language employed by Colonel Deane is almost identical with that used by Colonel Birkbeck two and a half years previously.

The following is the Order which was published :

“ Commander-in-Chief's Office,  
South Africa,  
December 1st, 1901.

Colonel Long has been appointed Inspector of Veterinary Hospitals, Remount Depots and Farms. All Departments will give every assistance, and carry out Colonel Long's requirements and suggestions with the least possible delay.

Colonel Long will also, when possible, inspect Columns with regard to the state of horses and their treatment when out on trek, and make any suggestions for the improvement of the horse management and the care given to horses on the trek.

He will see that the local Veterinary Officers inspect all Columns carefully on arrival at a station and before leaving, to ensure that no horses remain with Columns who require veterinary treatment, or go out on trek when not in a fit state to bear the fatigues of the march.

IAN HAMILTON (Lieut.-General),  
Chief of Staff.

The effect of this Order upon the veterinary service was stupefying; hitherto with all their difficulties they had been able to show results, and to lead the Remount Department on right lines where given the opportunity. That the hospitals were capable of improvement this History abundantly testifies, though great advances had been made since 1900. The difficulties which existed in 1901 were intensified by congestion, the result of a sick rate averaging 20,000 or more animals a month,\* and want of proper accommodation and cover for the sick which could not be supplied. An improvement in the structural requirements of hospitals was urgent; proper enclosures each containing only a limited number of animals, ample water supply, ample manging, some cover for the worst cases, protection against cold for the debilitated. None of these points had been neglected in the way of representation, but the branch of the service charged with these duties was busy with block-house lines, accommodation for sick men and stores, and had, over and over again with the best intentions, failed to comply with demands which it was known were reasonable, but for which neither labour nor material could be diverted. Every representation made by the Principal Veterinary Officer to the Commanding Officer Royal Engineers in South Africa was received with sympathetic consideration, but there was the old cry “the war may end any day,” and in the meantime what was considered more urgent work had a prior claim. Officers in charge of hospitals cried aloud to the P.V.O. for their requirements, and probably often thought their complaints fell on deaf ears. It was not so, but the P.V.O. was not armed with the same powers subsequently possessed by Colonel Long, who was authorised to order in Lord Kitchener's name everything he considered necessary. The pendulum now took a violent swing in the other direction: quite a feverish activity prevailed in carrying out improvements, and in building stabling. Money was poured out like water. A new hospital, costing thousands, could be obtained with-

\* Towards the end of the year as many as 28,000.

out hesitation, and not always with due discrimination as to the requirements of the place, or the oscillating centres of the campaign. The work was carried out under conditions approaching panic, which is always extravagant.

The structural improvements following on his inspections were considerable; the same could have been effected by anyone armed with Lord Kitchener's direct authority. As to the veterinary work, Colonel Long was far too well informed to interfere,\* while a veterinary officer on his staff always accompanied him.† He devoted his energies and authority mainly to the betterment of accommodation, and improving the conditions under which the veterinary work was carried out. For these improvements, though they came late, we can scarcely be too grateful. But, as above stated, the work carried out by him in connection with the improvement of veterinary hospitals could have been better carried out by an officer of the Veterinary Service armed with the same authority, whose technical knowledge would have rendered him a more completely valuable instrument, and we venture to think a less expensive one.

It must not be inferred from Colonel Long's appointment that the inspection of hospitals was not carried out by the Senior Veterinary Officers on the line and by the P.V.O. The administrative officers were few in number: 1 to Natal, 1 to the Free State, 1 to Cape Colony; the Transvaal fell to the P.V.O. With such a microscopic staff for a sub-Continent it was impossible, with the many other duties, to do more than make periodical visits to the forty-two hospitals which existed over the country at the end of 1901. There should have been three Veterinary Inspectors of hospitals, one each in the Cape, Free State, and Transvaal, charged with no other duties than passing from hospital to hospital, and by the closest supervision and initiative extracting the best results. Such appointments, with power to order necessary repairs and accommodation, would have been of immense value, such as no lay Inspector of Veterinary Hospitals could ever hope to attain, even though, as in the case under consideration, he was a man of exceptional knowledge of horse management.

Without detracting from the six months good work which Colonel Long was able to accomplish in connection with the building of hospitals, it must be remembered he was armed with powers such as no other man wielded during the war. The influence of his appointment on the Remount Service is another story; and does not fall to us to narrate, even if the facts were fully known. His service in connection with the inspection of columns was of the greatest benefit. It is true he could see but

\* No doubt at his visits he pressed for or ordered the destruction of horses. It is known, for instance, that he ordered 350 scabies cases to be destroyed at Standerton on 17th June, 1902, but this was after the war.

† It is clear from the pages of this History that the small numbers of the A.V.D. in South Africa did not admit of this loss to its executive.

few of the scores in existence all over the vast theatre of war, but as a protective measure the appointment was of the greatest importance. For the work to have borne the best possible fruit, there should have been half a dozen instead of one Inspector of Columns.

#### ARMY ORDERS ISSUED DURING 1901 TO CONTROL ANIMAL WASTAGE.

The animal wastage occurring during 1901 did not escape the attention of the Commander-in-Chief. On 24th January, the following Army Order was published on the question, and incidentally it serves to indicate the first appearance of a definite order for Columns to collect their own animal wastage. The officer referred to in the Order was always the veterinary officer when one was present. The scheme was the germ of official recognition that something must be done in the matter of collecting the animal *débris* of war.

#### CARE OF HORSES.

It has been brought to the notice of the General Commanding-in-Chief that sufficient attention is not paid by Column Commanders to the care and well-being of the animals upon which the mobility of their columns so much depends.

The following rules are published for guidance :—

(1) Horses should not be saddled up unnecessarily early and kept standing.

(2) The mounted troops of the main body will walk and lead their horses for a considerable distance each day. Every opportunity must be taken by individuals of dismounting whenever halted even for a few minutes.

(3) Halts should, if possible, be made at previously arranged times and for fixed periods at spots where the grass is good.

If considerations of safety admit, the girths should be loosened, saddles shifted, and bits removed to allow the animals to graze. The equine stomach is small, and requires constant filling.

(4) Opportunities should be given for watering horses after the sun is well up, and again about mid-day and before sundown.

(5) Officers commanding Columns will arrange for an Officer, with a sufficient number of kafirs on ponies, to collect and drive along with the baggage column all weakly and sore-backed horses which are unfit for duty.

This party will collect and bring along all derelict horses, British or Boer, fit to travel and likely again to become serviceable—those unfit or utterly useless must be destroyed.

The waste of horse-flesh will thus be diminished, and spare horses accumulated by columns.

On reaching the railway these animals should be handed over to the Remount Department.

(6) Weakly horses should not be sent with flanking parties.

On 22nd February, 1901, an Order was published that no sales of cast or debilitated animals were to take place.

On 22nd February, 1901, there were further orders regarding animals being abandoned, and it was prescribed that horses and mules with Columns, if unfit for work, should be sent to the nearest military post for transfer to a Depot or Veterinary

Hospital, as opportunity occurs. If too far from a military post to carry out the above Order the animals were to be destroyed.

Apparently no good results followed these Orders, for on 2nd April, 1901, another was published on the subject, and the wear and tear of Columns was directed to be reported weekly. Even the salvage of animals indicated in the previous Order would not appear to have been carried out, and in consequence the "Rules" laid down on 24th January (see above) were republished as an addendum to the following Order :—

#### CARE OF HORSES.

The G.O. Commanding-in-Chief fully recognises that, under certain conditions where some important advantage can be gained by rapid and sustained movement, the sacrifice of horses may become a military necessity.

On the other hand, there are many occasions where columns are not in absolute touch with the enemy, in which by more care and attention to the length of marches, watering, feeding, grazing, marching the men dismounted, and off-saddling, the present waste of horses and mules might be avoided, or at least greatly reduced.

In a number of cases at present, the wastage is little justified by the results obtained, and does not reflect credit on Column Commanders.

The G.O. Commanding-in-Chief, therefore, trusts that Officers Commanding will use every endeavour to keep their horses in good condition, thereby reducing to a minimum the heavy strain now experienced by the Remount Department.

Officers Commanding mobile columns will send in every Saturday to Army Headquarters a weekly telegraphic state specifying :—(a) The number of horses in possession at the commencement of the week ; (b) the number of horses killed, died, and destroyed during the week ; (c) the number returned to Remount Sick Lines ; (d) the number unaccounted for ; (e) the number received from Remount Department or other sources ; (f) the number remaining in possession at the end of the week. Similar information should be furnished regarding mules.\*

Officers Commanding Columns should remember that horses abandoned on the march are generally picked up and used by the enemy. Every effort should, therefore, be made, and natives should be employed, to bring in such horses, and where it is impossible to do this they should be destroyed.

Commanding Officers should give every assistance to Local Captain Macdonald and his agents, who are employed to collect stray Government horses, cattle, etc.

The collection of the stray animals by columns, referred to in the last paragraph of the order, draws attention to the formation of a Live Stock Recovery Department which was created on 7th January, 1901, and has been already referred to at p. 120.

Another measure for the preservation of animal life was embodied in an Order first published 25th April, 1900, and republished on 7th July, 1901, in which the burning of the veldt was prohibited, either by the carelessness of the troops or intentionally by farmers. It is astonishing considering that the whole force of horses, mules

\* On 24th January, 1901, an Order had been published directing a weekly report to be furnished of the casualties among transport mules and oxen.

and oxen in South Africa were officially dependant on the veldt for their hay ration, that wanton destruction of large grazing areas was caused by some column-commanders firing the veldt, and leaving the area to be subsequently traversed by columns a blackened wilderness. When orders were issued to destroy crops some commanders fired the grass in an excess of zeal, a futile proceeding as far as the enemy were concerned, and a disastrous one for our own animals. It is incomprehensible how men could have been found to scuttle their own boat thoughtlessly, for though horses and mules had a small corn ration, the oxen were entirely dependent upon what they could obtain by grazing.

The overloading of transport waggons, drawn attention to in the Army Orders of 1900, had steadily grown until the transport early in 1901 was out of all proportion to the force it accompanied, see Fig. 1. The following Army Order dated 29th July, 1901, reveals the situation:—

"It has come to the notice of the General Commanding-in-Chief that in many instances the allowance of baggage authorised for mobile forces is greatly exceeded, and that transport allowed for supplies is used to carry miscellaneous collections of unauthorised articles. Captured transport, instead of being handed over on the force reaching the line of communication, has in some cases been retained with mobile columns and used to convey such articles as cooking ranges, furniture, and even pianos and harmoniums.

"It appears that it is necessary to remind Commanders of Columns that the essential factor of a mobile force is mobility, and that nothing should be carried beyond what is requisite to feed men and animals, and to maintain fighting efficiency.

"If Columns are habitually impeded by unnecessary transport they cannot act effectively, and Lord Kitchener directs officers commanding mobile forces to ascertain personally that all superfluous equipment, baggage, stores, and vehicles are in future dispensed with."

As the practice continued in spite of the Order, it was later on directed that the above should be read to the troops not less than once a fortnight.

In connection with this matter, and bearing on the question of horsemastership, a witness before the Court of Enquiry Rem., stated, from personal observations, that he had known oats left behind in order that baggage might be carried.

Q. 3819. Is it within your knowledge that these horses were properly fed at the front? A. I am quite aware that it was impossible to feed them at times, and impossible always to give them the attention that they would require, but still, if anything went wrong with a column they would throw off the oats first and carry on the other baggage.

Q. 3820. Is that hearsay? A. No, I have seen it myself; if a waggon broke down they would unload the sacks of oats in order to load up probably another waggon containing furniture. I do not want to make any sort of charge, but from the Remount point of view that was very exasperating.

The Commander-in-Chief was equally concerned for the care of his transport oxen, as may be seen from the Army Order of 5th January, 1901, referred to at p. 144.

On 28th November, a Memorandum was issued by the Adjutant-General, in which the Commander-in-Chief directed that only horses which were really fit for hard work were to accompany Columns, and that for the unfit a temporary base was to be formed on the line. The horses so left behind were not to be employed on any duty. It was further directed that remount horses were not to accompany Columns within seven days of their receipt from the Remount Department; until then they were to remain at the Column's base.

The number of horses left at this base was to be reported, and Column Commanders had to notify the Remount Department, after each trek, of the number of animals they had been compelled to return to Remount Depots and Veterinary Hospitals.

The same order directed the formation of a mobile Veterinary Hospital in each column. It was specially stated that cases of sore back were to be at once handed in to this hospital, and that if no spare animals were available the men must walk.

The war had been in progress two years before mobile hospitals received official approval. It is true they existed in several places, but their employment depended upon the Column Commander. They were now, for the first time, directed to form part of each Column, but the order came too late. With the appointment of Colonel Long—a few days later than the above Order—veterinary assistance was largely withdrawn from columns and placed on the line, so there was no one to take charge of the mobile hospitals. This policy was the opposite of that pursued by the P.V.O.; the disadvantage of a dual control was not long in manifesting itself.

#### VETERINARY HOSPITALS, 1901.

During the last month of 1900 it was decided by the authorities that *one* thoroughly equipped Veterinary Hospital should be erected, equipment and personnel being withdrawn from other hospitals and sources, to complete what was intended should prove a model establishment. The place selected for its creation was Elandfontein, close to Johannesburg, and within three miles of the largest Remount Depot in the country. The site was at an altitude of some 5,800 feet, and was practically safe from horse-sickness. Here was developed under successive administrations, but mainly under that of Major Pringle,\* a hospital with stabling for 500 sick, general accommodation for over 2,000 horses, together with a good subordinate staff, and equipment for dealing with matters on a basis not previously permitted.

The beginning of the year 1901, saw this hospital in full work, and it is fortunate that during the remainder of the war the Head-quarter Staff of the Army, and others, had an opportunity of seeing the organisation the Veterinary Service could put into their hospitals when given a free hand and assistance.

\* Now Major-General Pringle, C.B., D.S.O.

From January to December, 1901, the total number of admissions to this hospital at Johannesburg was 24,606. An analysis of these cases is valuable as showing the class of disease met with on active service:—

	Admitted.	Cured.
Debility	6785	2506
Mange	5049	3549
Lameness	4994	3560
Sore Backs	2747	1592
Wounds	1938	460
Glanders (clinical cases only)	238	—
Quitters	236	195
Various	2619	2732
	24,606	14,594

Out of 24,606 cases 14,594 were cured and returned to duty; 6540 were destroyed from various causes, and 2142 died. The balance of 1330 remained under treatment. The weekly average for the year would accordingly be:—

Admissions	473
Discharged to duty	280
Deaths and Destructions	167

In round numbers it may be said that nearly 60% of the admissions were cured and returned to duty, sufficient evidence, if any were required, of the value of a hospital. The deaths and destructions were 35·2%.

It is interesting to know what work was being accomplished by some of the other hospitals in South Africa during 1901.

	Months	Cured	Died and Destroyed.
At Middelburg <sup>o</sup> Transvaal	in 7	56·5%	24%
Kimberley	8	63	24
Stormberg	12	65·8	25·8
De Aar	6	74	15·25
Orange River	6	26	20

The latter was a typically bad hospital. It will be observed the death rate was no higher than in the other hospitals, but the cases were not got out to duty.

The good results obtained by hospitals were brought to the notice of the War Office later in the year, who were asked to authorise the formation in South Africa of a Field Veterinary Hospital to contain 2,500 cases, with the following staff:—3 Veterinary Officers, 4 Non-Commissioned Officers, 5 Shoeing Smiths, 4 Privates, 25 Veterinary Assistants, 5 Conductors in charge of natives, and 520 Natives, on the basis of one to every five horses. Extra duty-pay was allowed to the Non-Commissioned Officers. The scheme was a good one, its only weak point being the small proportion of Non-Commissioned Officers, who should have

\* I have to thank Major Cochrane, A.V.C. for this information.

been at least ten in number, for supervision is the keynote to success. It is to be regretted that approval was only given for *one* hospital on the above scale, and this at a time when the War Office knew that there were always twenty to twenty-eight thousand fresh cases of sickness occurring monthly, among the horses in South Africa.

At the beginning of 1901 there were 38 Field Veterinary Hospitals dotted all over the country, and varying in strength from 300 patients to 3000. Towards the end of the year there were fifty such hospitals. The work these did was of unequal value owing to local difficulties, want of organisation and personnel, and the inability of some of those in charge—many of whom were civilians—to adapt themselves to military methods and requirements without experience and training. It is for this and other reasons we have stated that an Inspector of Veterinary Hospitals for each Colony should have been created, with no other duty than passing from hospital to hospital, organising, assisting, directing, and showing the right way to obtain the best results. Had such a system existed and the inspecting officer been empowered to order what was absolutely necessary, there would not have been any occasion for the appointment of Colonel Long.

An effort was made to have hospitals arranged on a general plan, the details of which naturally varied with local conditions. Such a scheme was intended as suggestive, and showed the officers in charge what was expected from them. All, however, were not equally apt in making the best of local conditions, while, on the contrary, others showed initiative which reflected itself in their general good arrangements. One of the greatest drawbacks was the absence of authority on the part of the Civil Veterinary Surgeons in charge; they could give an order, but to enforce it, or to deal with breaches of discipline necessitated invoking outside aid—a weakening of the general structure which nothing could correct but military status and rank.

The local facilities for hospital organisation differed at every place. Some stations lent themselves readily to the purpose, others were equally refractory. Water was the great difficulty, and without an ample supply no thoroughly good work could be done. Military considerations frequently restricted the available site, and some Commandants had an idea that a hospital for animals was associated with something so excessively unpleasant, that the most unfavourable and out-of-the-way position was allotted it.\* An instance of this occurred at Belfast in November, 1900, p. 151, where

\* The notion that a veterinary hospital was an offensive institution, to be kept as much as possible out of sight, had not died down after the war. When the site for the present cantonments of Pretoria was laid out, it was proposed that the veterinary hospital should be placed far away on a flank, adjoining the ground used for the disposal of the cantonment excreta! It is obvious that a hospital to be of any use must be centrally and conveniently situated to the troops for which it is intended, and on uncontaminated ground.

the hospital, having been pushed almost beyond the entrenchments, found itself during the night attack on that place exposed to the fire of defender and attacker; but for the fog it would have been captured by the enemy, who passed close to it. At Stormberg, a piece of ground quite unfit to hold its 500 sick was all that was considered available, owing to the difficulties of providing it with defence. The position was hopelessly restricted, and a better one was only given on the understanding that the hospital would dig and man its own trenches for defence.

If suitable sites and water supply were difficulties, they were nothing compared to those experienced in getting anything erected in the form of shelter or protection. The local engineer officers were anxious to help, but said their men were engaged on block-house work, and that all constructive material sent by rail was for block-house purposes only. Over and over again did the P.V.O. in Pretoria endeavour to arrange with the Commanding Royal Engineer for a start to be made by the construction of shelters, especially at those places known to be affected with horse-sickness. A type of building had, in the first instance, to be "got out" on paper and approved, in which the primary consideration was to be cheapness. Month after month building operations were deferred from one cause or another, congested railways, supplies, movement of troops, block-house lines, etc. All of these were quite true, but the delay was mainly, no doubt, due to the belief that the war might "end any day."\* In the meantime the Veterinary Service in charge of hospitals had been making bricks without straw for over a year, and felt that their claims to some consideration in the matter of accommodation for their sick were being overlooked. It came as a positive relief to many, after the first shock of the Long appointment (p. 194), to know that they only had to ask in order to receive. The more they asked for, and the more pressing the construction was represented to be, the better the Inspector of Hospitals seemed pleased. He harassed the Engineers under threats of pains and penalties, and galvanized life into the construction of stabling, manging and enclosures. Especially was stabling necessary for those hospitals situated on the table land of the Eastern Transvaal. Here, and down to the border of Natal, the winter was

very cold, and the only chance of recuperating the debility cases was to screen them from the bitter wind. But anywhere on the table of South Africa the winter is cold and the wind trying. De Aar or Stormberg in Cape Colony, might in this respect rival Standerton in the Transvaal.

Speaking in general terms, the all important structural details for hospitals were water-troughing, manging, and good enclosures. The system of trying to feed without mangers is shockingly wasteful of forage, every pound of which having been sent from 5000 to 7000 miles across the sea, was then thrown in the dirt or sand, and picked out or trodden underfoot as may be. The absence of mangers led as much as anything else to condition not being regained. What equitable distribution of food could occur when it was thrown down on the ground in a line, pawed up by anxious feeders, or blown away by the wind? If the horses had had food in them they would have felt the cold less, and in fact wind screens would have sufficed in the majority of instances, with a certain amount of stabling for the worst cases. Nothing can take the place of mangers; they are the first consideration as far as horses are concerned in a standing camp. Few people outside the mounted branches appear to realise their paramount importance.

The activities of the mobile hospitals, of which the first took the field in Natal early in the war (pp. 85, 86), were sufficiently good to induce the authorities to approve a partial extension of the system. Such hospitals can never be more than a connecting link between the sick in the field and the Field Hospitals on the Line of Communications. If they become congested they are useless; the keynote of their effective management is evacuation. By April the personnel, stores and equipment for a few mobile hospitals had been fixed, but above all the transport, without which it could not move. Further, its staff was mounted. Men who have been trudging along with troops all day are not fresh enough for work when the bivouac is reached. It was during General Elliot's sweeping movements in the Eastern Free State (p. 160) that a mobile hospital was given a thoroughly good and extended test, and proved, under the organising capacity of Major Mann, the S.V.O., how useful it could be made.

Those columns without a regular mobile hospital had, as we have seen from the Army Order of 24th January (p. 195), been instructed to make better provision for the care of sick animals on the march. In the operations conducted by General French in January in the Eastern Transvaal this make-shift system was brought into general operation and proved most useful. Unfortunately, no transport at this time was allowed for the work, which meant that no equipment was carried other than in the regimental waggons. This was not only insufficient but impracticable; the sick and derelicts when collected had to be kept together, and herded somewhere for the night, and this meant that equipment for dealing with them was necessary. Those veterinary officers

\* Sir Fleetwood Wilson, who went out to South Africa as Financial Adviser to Lord Kitchener, says that whatever he accomplished was done as the result of "coaxing," in spite of the exceptional advantages he possessed in knowing personally those with whom he had to deal, and having been associated with soldiers all his life. He is, of course, representing his position as a civilian, but nevertheless he was a member of the Headquarter Staff of the Army. See R. C. Evid.: Vol. i., p. 253.

It is not everyone who possesses the striking personality and persuasive powers of Sir Fleetwood Wilson, so that a good case may fail for want of the needful "coaxing" powers; in the military hierarchy, not only are the difficulties of adopting this line considerable, but it would be subversive of discipline.



who were possessed of initiative "found on the veldt" the transport and waggons required, and literally made their own arrangements. Later on, as previously mentioned, regular field establishments and proper transport were allowed to some columns, but by no means all.

It is nothing less than extraordinary the grudging methods followed in tackling the sick-horse question even fifteen months after war began. Money was poured out like water by other branches, but any makeshift was considered sufficient for the needs of the veterinary service. This applied not only to the mobile hospitals but everything else connected with the department in the Field. We believe there was a genuine desire on the part of the military authorities, not only to diminish the waste of horses, but also, as far as was practically possible, to diminish some of the cruelty which must ever be practised in war, but it is remarkable that the efforts of the veterinary service in this connection met with so little substantial support. The transport problem is always a difficulty: as early as April, 1900 (p.144), attention had been directed to it. In the first half of 1901 it had become serious, and columns were carrying about with them "miscellaneous collections of unauthorised articles." \* The Commander-in-Chief found it necessary to remind his Column Commanders "that the essential factor of a mobile force is mobility, and that nothing should be carried beyond what is requisite to feed men and animals, and to maintain fighting efficiency. † From this Order it is evident that a fraction of the transport employed for the carriage of unauthorised articles, might well have been devoted to conveying appliances and means for rendering effective first aid in the field, and in collecting and taking the sick along. The importance of their duty would have been emphasised had these earlier mobile detachments received proper official recognition, and a scale of staff and stores been laid down. It came months later, and, like most other things, too late. On 28th November, 1901, it was directed "In order to reduce the present very heavy wastage in horses," that among other measures Mobile Veterinary Hospitals should be formed in *each* Column, page 196 . . . . On the 1st December Colonel Long was in charge, and on 19th, under his instructions, orders were issued by the P.V.O. that a number of veterinary officers were to be withdrawn from Columns in order to strengthen the personnel of the Field Hospitals on the Lines of Communication. Thus, mobile hospitals having been approved for all Columns, after two years wastage of horses through their absence, were once more relegated to the background. Those already existing did not disappear, but became altered in nature; each large Field Hospital furnished a mobile section, but it was only mobile in the sense that it could be moved from pillar to post on the Lines of Communication. What was required was an organisation with the troops, call it what you may, for dealing with the

exhausted, injured and sick, under central and organised management, and responsible for bringing such cases along until fit to be returned to their unit or handed into hospital on the line being reached.

The great difficulty in all hospitals, whether stationary or mobile, was to obtain efficient and permanent personnel. Almost every man in the hospitals existing in the country was borrowed, with the exception of those belonging to the ten Indian Field Veterinary Hospitals, and the one sanctioned by the War Office at Elandsfontein in September. Some of the men employed were deliberately hiding away from their regiments, and were not recovered for months. If he was a useful man, above all a skilful dresser, it was not to be wondered at that no active steps were taken by the hospital authorities to find out where the man's regiment actually was. But, of course, such a system is indefensible.

The year 1901 had seen considerable changes in the personnel of the hospitals raised in the country during the campaign. India had sent a large number of trained dressers, who were distributed amongst them. Civil shoeing smiths, drawing £180 a year and rations, existed by scores, and were also distributed, and useful men among the Dutch population were brought in from time to time as conductors. \*

The personnel so acquired gradually took the place of the soldiers who had been borrowed, or otherwise obtained; even then senior non-commissioned officers were required, and these had to be retained throughout the war, though in theory they should have been serving with their regiments. Nevertheless, the whole fabric of the hospitals was unsubstantial, from the Civil Veterinary Surgeons whose time was expiring and who wished to return home by the next ship, to the Kaffirs who deserted after pay day and were seen no more. There should be no such thing as a "scratch" institution with an Army: if it is necessary it should be recognised, organised, and placed on a proper basis.

Much has to be done by the personality of the head of affairs in removing official opposition to the introduction of new ideas. † There are many men and many minds on the Staff of an Army, but if there is one subject on which most of the minds are agreed, it is that of affording as little recognition as possible to veterinary requirements, pushing them into the background, and trusting to time to adjust difficulties. It is the old story of the medical department, with the exception that public opinion has scarcely been aroused in the matter of the horses, in spite of the size of the remount bill. That, after all, is a lower plane than the real one on which we think this question should finally be judged; we owe a moral obligation to animals which cannot be evaded.

\* Army Order I., 29th July, 1901, p.126.

† Idem.

\* This was a proceeding not without danger, for these men necessarily became possessed of information.

† See Footnote, p.198.

The more organisation and permanence introduced into these Field Hospitals the greater the correspondence which arose with other departments, especially that dealing with finance. The Indians were paid by a specially appointed official who dealt with all Indian natives, both with the Remount and Veterinary Services. All others were paid by the Chief Paymaster, and the very large sums of money needed necessitated the officer so employed being made what is technically known as an "accountant," entailing a considerable amount of financial responsibility and elaborate accounts.

The opposition of the Remount Department to Veterinary autonomy died very hard; it never became wholly extinguished, and the young officers of this service were, as usual, the most aggressive. At Orange River a remount officer expressed his intention to inspect the hospital and demanded returns of sickness. At Aliwal North the bold measure of clearing the sick out of the hospital and monopolising the services of the Civil Veterinary Surgeon for purchasing duties was adopted. At Mafeking the cases cured at the hospital were refused by the Remounts, as no information could be given of the units to which the sick originally belonged! Doubtless there were many similar though unrecorded cases of interference. These small matters indicated the feeling still held by remounts towards the veterinary service, though it is right to record there were many exceptions, especially among the senior officers, some of whom were not slow to recognise that undivided responsibility is the first step towards sound work.

One important step taken in Jan., 1901, was a form of return rendered weekly by all hospitals showing exactly how they stood in the matter of patients, the numbers admitted and discharged, the diseases they were suffering from, the staff employed, and the condition of the equipment and stores. The return was so arranged as to reduce clerical labour to a minimum; in a few minutes a document was prepared which enabled the administration hundreds of miles away to feel the pulse of every hospital throughout the country, and see matters as they were actually occurring. Postal services during war are irregular, so that weekly telegraphic states were rendered on a code form previously arranged, which not only reduced the strain on the telegraph department, but took but a few minutes to prepare.

Before closing this notice of the hospitals in 1901, it is due to those members of the profession who assisted the army in a civil capacity to record the ability shown by some of them in hospital management, and in mentioning the names of C.V. Surgeons J. I. Smith, J. Buck and J. M. Parker (the latter a Canadian graduate who died in office) as men showing conspicuous ability and power of organisation, it does not detract from the merits of others whose good work was unfortunately less known.

#### PROTECTION HORSES, 1901.

In the account for 1899-1900 we drew attention at p.132 to the fact that two distinct classes of local horse came into our possession during the war, one being captures, the other for protection. It was pointed out that in the rush of affairs no system for dealing with these existed, nor indeed had the matter even been considered.

Protection-horses were those brought in from districts in Cape Colony to prevent them falling into the hands of the enemy, and though tens of thousands were similarly brought in from districts in the Transvaal and Orange Free State, the use of the word protection could not be applied to these, as they were swept up in countries with which we were at war. To this stock the term "captures" is applied. They were brought in in pursuance of an order that no living animal was to be left behind.\*

It was in December, 1900, that the comparative peace and tranquility which had for so many months reigned in Cape Colony was suddenly disturbed by the attempted invasion of De Wet, and the actual invasion by Hertzog and Kritzinger. The military authorities at once realised the danger of leaving on the various farms of the invaded districts such a potential source of warfare to the enemy as the horses represented, and Commandants of districts, together with Magistrates, were directed under Martial Law to collect and hold these animals at centres where they would be safe from impressment by the enemy. It was further directed that from these horses all available remounts should be selected and, of course, paid for. We have seen that there was no system for dealing with these thousands of animals, which consisted of horses of all classes, including breeding stock and foals. Doubtless it was at first thought that the emergency would soon pass, and the animals could then be returned to their owners. This idea was rudely dispelled by the second attempt of De Wet to enter the Colony two months later, and it was then recognised how imperfect had been the first collection of material, for, from the animals left on the various farms he had no difficulty, with the aid of Hertzog, in making good his immense loss in horses. Stringent orders were consequently issued, and thousands more brought in. Still no system existed for dealing with them.

Lord Kitchener in April, 1901, issued orders that Columns operating in the Cape were in future to be remounted from local supply only; † the animals so obtained were drawn from protection stock on payment, and on requisition from the inhabitants. As we have already seen, p. 152, footnote, 15,000 were obtained in this way in January, and by the following July 75,000 animals had been obtained from the same sources, in a country previously reported to be unable to furnish a horse supply. In spite of

\* See foot note, p. 175.

† "Times History," vol. v., p. 243.



Fig. 4. A mid-day halt. Column resting during one of the operations in the Eastern Transvaal, towards the end of 1901. Note the exhausted condition of the horse lying down; also the rifles left hanging in the bucket, causing the saddle to heel over and damage the withers. Observe the impedimenta placed upon the men's saddles. The central figure is an officer's horse; such carries nothing but the rider.

Fig. 5. A remount photographed the day it joined its unit. Note its condition; also the result of possessing a short dock. The mechanism of a rope gall is seen on the near fore limb.



Fig. 6. A remount photographed on the day of joining. Note the shape of the hocks and overshot hind fetlocks.

*Fig. 4 from photograph by  
Mr. F. B. GRESHAM, of Newark.*

*Figs. 5 and 6 by  
Captain HEAD, A.V.C. (R).*



Fig. 1. Type of Mobile Column early in 1901; note the amount of transport. The horses grazing in the foreground are those of the escort of the column. The scene is typical of the rolling veldt of the Free State.

Fig. 2. Clogs on Column Mobility.

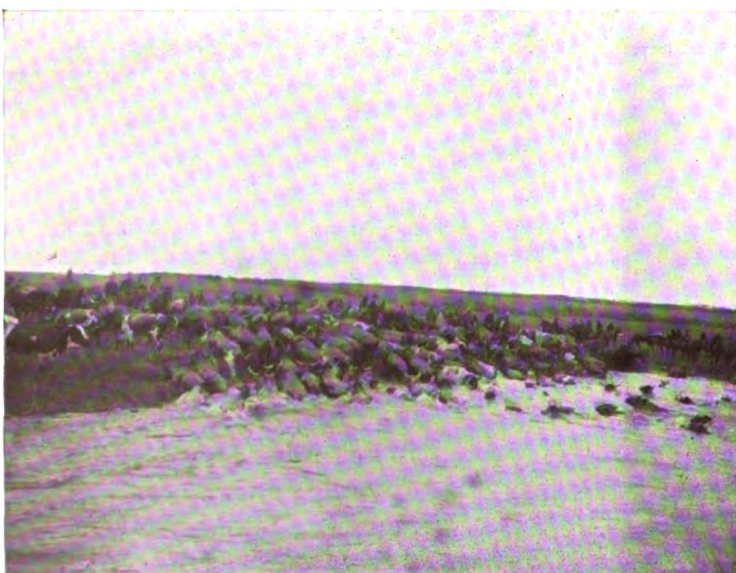


Fig. 3. Loot stock.

*From photographs by*  
Mr. F. B. GRESHAM, of Newark,  
late C.V.S.



this heavy drain there were at this time thousands of horses on protection farms, some useful, many useless for military purposes, generally as the result of impoverished condition due to starvation. Efforts were made to train and render fit for the use of Columns some of the vast numbers remaining, and in this respect the Remount Depot at Kimberley was particularly successful, and on a smaller scale the Depots at Stellenbosch and De Aar.\*

It was at Harrismith, as we have seen at p. 132, that the first steps in dealing with this class of stock had been taken in 1900. Similar operations were carried on through 1901, the whole of the new Yeomanry with Rundle being mounted more than once, and various Columns in the vicinity replenished. Breeding stock formed about one-half of the captures brought into Harrismith by the various Columns whose movements have already been narrated, and as far as possible an attempt had been made to retain this for the future development of the country. It represented the cream of the Free State studs, and no one had any previous notion of what this consisted.†

Colonel Matthews, in a note written at Standerton in May, 1901, describes his inspection of the 5000 head of stock resulting from one of Elliot's drives. "I spent a most interesting two-and-a-half hours watching these 5000 animals, brood mares and stock, from yearlings to six years old. I had now spent four years in South Africa, and although perhaps I ought to have known, yet I had no conception such beautiful brood mares existed in the country." In a further note he remarked on the facility with which the Australian and New Zealand soldiers converted the brood mares—unbroken even to the halter, and many as old as fourteen years—into saddle horses in the course of three weeks. This, however, could only dispose of a very limited number, and, as opportunity offered, both from Harrismith and the Transvaal, breeding stock, estimated at from ten to fifteen thousand, was sent to Natal. The bulk of this material went to Mooi River; when seen shortly afterwards, overcrowding, starvation and neglect had done their work, and cannot be better described than in the language of one who witnessed it: "It broke my heart to see these magnificent mares, many nearly, some quite thoroughbred, dying slowly from starvation and a variety of diseases." Colonel Matthews says in a note written after inspecting some of this stock at Mooi River: "I found fourteen mares had aborted in one paddock; one or two carcasses were lying around in a state of decomposition, and the burial pits, where seven horses awaited interment, were only sixty yards from the main horse enclosure." If the above state of affairs could exist in a large horse station like Mooi River, under the nose of the Remount Department, with horses now the property of the Crown, it can be imagined what occurred at the dozen or more places in Cape Colony where

protection horses were confined. Evidence was given before the Royal Commission on the War by Lord Lovatt who, in discussing the waste of public money in the purchase of horses, described one of the Cape protection farms. He says:—

"For example, 6000 horses, mares and foals were near a place called Burghersdorp, and there was no apparent reason that they should not all have been used for His Majesty's Forces. They were good mares and young horses; there were few absolutely fit to ride at once without training, as the mares in South Africa, although broken to harness, were never broken to riding. The mares were all kept in this place, and apparently no one seemed particularly interested in the matter, and the remounts had them in charge; they were left to run over two or three small farms, and they gradually pined away and wasted for lack of food. No one was allowed to take what they wanted of those, and at the end of the war these 6000 horses had diminished to about 700 or so.

Q. 20,752. Were these captured horses? A. They were cleared off farms; I have seen perhaps 1500 or 1200 sent to this farm in one drove.

Q. 20,753. And they were chiefly mares which would not have been used for Cavalry? A. Yes, mares; but there was no reason why they should not be used; they only required to be broken and to get a little condition on, and they would have done as well as horses.

Q. 20,752. During that time were you not in want of horses? A. Yes, and I took them when I passed there, but I was not allowed to take them. I asked leave on one occasion, and I was refused.

Whether the Remount Department should have been permitted to burden themselves with the care of these animals is another question. In our opinion, absolutely not, for their hands were already too full. As far back as 5th December, 1900, the subject of the disposal of the captured stock was already exercising the mind of the Assistant Inspector of Remounts, for in a letter to the War Office he says.†

"That mare and foal business is arriving at rather alarming proportions. We are practically clearing the Free State and Transvaal of breeding stock, and transferring it to the Colony and Natal into loyal hands at nominal prices. Of course in time it must all get back to the grazing countries."

This shows how ignorant we were of the horse resources of the country, for the work of clearance had not yet begun and already the number of stock to be provided for was alarming. No provision, however, was made, not even six months later, by which time tens of thousands of captured and protected stock had to be legislated for. It was not, in fact, until October, 1901, that any definite regulations were drawn up for the care of the protection horses in the Cape. The regulations created a "Protection" branch of the Remount Service, but by that time the majority of the horses were dead. Pending the creation of this branch the animals fell to the care of local commandants, who knew nothing of horses, and whose sole anxiety was to prevent their recapture. The wretched creatures were herded at night inside infantry entrenchments, and each day marched solemnly to grazing grounds a short distance away, bare of everything

\* At one time De Aar employed fifty roughriders.

† See foot note, p. 185.

\* Q. 20,751, Vol. ii., Evidence, p 479.

† C. of E. Rem. Evid. Appendix F, p. 366.

but the bones of those which had died. No rations were allowed them. How could they be when our own horses in the field were on a semi-starvation diet? When a remount depot was adjacent they came under its care, as at Burghersdorp quoted above, and in active centres like Stellenbosch the suitable were selected for breaking and trained. Of course, this class of material had no right inside a remount depot, which it only congests. As an example, in July, 1901, there were 100 two year olds being hand-fed in the Remount Depot at Stellenbosch, with no possible prospect of any return for the rations given them, and the hay which was denied our own horses in the field.\*

When protection horses were brought in the owner's natural desire was to have his stock purchased outright, and in some cases this was actually done under misapprehension. See C. of E. Rem. Evid. Q. 6515.† Rightly, the authorities negatived any such wholesale purchases excepting for suitable animals, and it was also made clear to the owners that no compensation would be given for loss, and that the animals must take their chance. The regulations, introduced, as we have said, in October, at least gave something definite to act upon; we cannot enter into them. In the coast districts, considered to be safe from the enemy, the horses were registered and remained with their owners; elsewhere they were concentrated on farms. In October the registered horses remaining with their owners amounted to 18,000, the protected horses on farms stood at 22,700, all that was left of certainly double the number, probably more, of the previous January.

The formation of a Protection Department did not stop the mortality. The horses in many cases were past recovery; in some districts the entire herds looked like dying, and the residue was given to farmers to look after. The mortality was due not only to starvation, but disease introduced and disseminated by the unavoidably indiscriminate mixing of sick and well, the young and old; but more especially from starvation, the result of overcrowded grazing grounds. The latter had to be confined to areas under military occupation, and were already well grazed by the transport, or to areas in the neighbourhood of the line of rail or other military posts. Another cause of mortality was due to change of grazing; animals from the midlands were sent south where the herbage differed, or those from the east were sent to the west. Any sudden change from their old to a new grazing district was a source of loss, not only owing to the difference in herbage but from poisonous plants. Animals reared on pasture containing the latter learn from experience to avoid them; the new comer falls a victim. Strangles was rife among these horses; glanders frequent;

\* These two year old horses were being allowed 12lb. hay daily, thrown down on the ground.

† The witness, a Remount Officer, says:—

"At one time there was an order given by mistake to buy every horse, foal, mare and everything. I bought those and, of course, they had to be sent to a farm."

parasitic disease of the intestinal wall abounded and hastened dissolution under the hardships to which they were exposed.

The arrangements made in October at a cost of about £3000 a month were good, but came nine months too late to be of any real benefit. In October, 1901, 22,700 horses were taken over, and some small numbers were added month by month throughout the war. The numbers so added are unknown, but when the war closed there were a little over 12,000 survivors on farms. The deaths between October, 1901 and May, 1902, amounted to 10,500, say 46%. If 46% died in six months when arrangements costing £3000 a month existed for their care, we can imagine what the mortality was during the nine months prior to October, 1901, when no arrangements existed. It is probably not too much to say, that between January, 1901 and May, 1902, not less than 80% of the Protection stock died, or was destroyed, from disease or starvation.

The account we have given of protection farms differs materially from that briefly recorded in the "Times History" of the War, Vol. vi., p. 444, in which the following appears;—

"An interesting development of the duties of the Remount Department was the protecting of locally owned stock by receiving them into remount farms.

It is satisfactory to know that owing to the care and trouble that was taken over this onerous duty, upwards of 24,000 animals were given back to their lawful owners at the end of the war. Many of the animals had grown out of all recognition, and many were only identified by the careful records kept by the officers in charge of the 'protection' farms."

It would seem that in the 24,000 have been included the 18,000 registered horses not removed from the custody of their owners. We are not told how many horses originally existed. The inner history of this calamity was evidently unknown to the writer of the above notice.

#### DEBILITY FARMS IN 1901.

The history of debility farms in the Cape and Orange Free State in 1899-00, has been given at p. 137.\* It has been pointed out that the Remount Department from the beginning of the campaign took charge of war-worn horses by placing them in their remount depots. When these could hold no more they hired farms, subsequently known as debility farms, into which the horse residue of war was poured, without inspection, and into places which did not afford sufficient support in the way of grazing for the number of animals placed on the farm. The year 1901 saw remount depots containing annexes full of disease, next door to, or even in contact with, the fresh animals from over sea. In addition, there were the debility farms, on which no remount horses were kept. Both places, as we have seen, were affected with mange and glanders.

\* See foot note p. 137 for other references, also pp. 132, 133.



It cannot be supposed that depots were deliberately infected, nor that they were infected through ignorance of the existence of the two above diseases. We have, therefore, to look at this question and ask why it was that a policy continued to be followed which the veterinary authorities before and during the war had pointed out could only result in disaster. The answer is brief, their opinion was not trusted. It was generally believed by the Remount Authorities that glanders did not exist in anything like the extent which the veterinary people stated: as the responsible officer said in conversation in 1901, "if it did we should hear more about it." As to mange, the notion widely existed that what we called mange was an affection of the skin which passed away spontaneously after the winter, and that it was therefore a trifling question. We shall examine the evidence on these points.

In a letter to the War Office dated 10th August, 1901, the Assistant Inspector of Remounts, says: \*

" . . . By the way you must not be alarmed at mange in this benighted land. Nearly every horse in Government or civilian hands which is left on the veldt in winter gets mange; the inhabitants take no notice of it, and it goes with the new coat; we put them through a disinfectant bath which kills it in a few times."

Such an opinion coming from the responsible head of the horse question in South Africa, was calculated to allay the natural anxiety which the returns of disease would create at the War Office; the information furnished to this body we may take to be the information supplied through the same channel to the Commander-in-Chief in the Field. For reasons which do not here concern us, veterinary opinion is not trusted until real difficulties arise. The casual observation or opinion of a layman belonging to the Staff carries more weight than expert advice, and this is not confined to veterinary matters only, though it is intensified in this case, as every mounted officer is given credit for knowing "all about a horse." The grounds for this belief are difficult to see; as a matter of fact, the layman who does know something of a horse is the most appreciative of veterinary advice. We see from the above that it was agreed to consider the question of mange as one of those trifling matters which the veterinary service had magnified into alarmist proportions.

As a matter of fact there is a disease of the skin affecting the native horse which is so like mange that it can scarcely be distinguished; further, as the Assistant Inspector of Remounts says in his letter, it is spontaneously curable, and it may be added is not contagious. These cases, however, did not represent the disease from which the over-sea horse was suffering; with them the psoropt could readily be seen in a warm sun, and the sarcopt by deeper scrapings and microscopical inspection. There was no doubt of the nature of the skin disease existing among the animals in the Field. From the

latter half of 1900 up to the time we are speaking of, it was parasitic mange of the above two types.

Regarding the Remount attitude towards glanders the evidence is equally convincing. Not only was the widespread existence of the malady denied, but it was openly stated that the Dutch and the Colonists looked upon our cases as those of "new sickness," a curable affection with which they had in recent years been rendered familiar. The opinion of a Dutch or Colonial farmer on matters of disease was a valued asset to the layman, who took it as his text and preached accordingly; unfortunately, in the matter of glanders, professional opinion was on their side. At least two Civil Veterinary Surgeons employed with the Remount Service believed that the cases condemned by their military brethren as glandered were not cases of the disease. One adopted the view that the cases were pyæmia, the other that it was the "new sickness" of the Dutch, which, according to them, is a non-contagious and curable affection.

With such professional views as these existing in the Remount Service, it is not difficult to understand how gladly they were given credence in discrediting the alarmist report of the military veterinary branch. The layman is always strongest in technical matters when he finds a divided house. The view of the non-glanderous nature of these cases grew and spread, in accordance with the natural desire of the Remount Department to make the best of matters; finally, when their case was believed to be at its strongest point, the Remount Department asked that an inquiry should be held into the nature of the cases which had so long been mistaken by the Army Veterinary Service.

Among the witnesses examined by the Court of Enquiry on Remounts was Lieut.-Col. Darby, a Deputy-Assistant Adjutant General serving on the Staff of Colonel Birkbeck. This officer, from June to September, 1901, was responsible for the Remount Depot at Johannesburg. In his evidence on "new sickness," Q.6567, he says:—

"They get a very heavy discharge. It looks like glanders, but a civil veterinary surgeon attached to the Remount Department said that the ulcerations were not of the same nature as glanders, and he was so sure of this that to prove it he inoculated himself. He did not get glanders, though he got a sore on his hand, and the military veterinary officers in the Field Veterinary Hospital still declaring it was glanders, Colonel Birkbeck asked to have a Court of Enquiry on those horses said to be suffering from glanders, but which the civil veterinary surgeon said it was only "snotsickta" (new sickness). They had this Court of Enquiry at Germiston; they killed four horses, but the results were indefinite. However, they declared it was glanders, and that the horses must be destroyed. But these horses recovered if left alone. Though they were not fit for anything for three months they got alright, and a glandered horse never gets alright. The civil veterinary surgeon who inoculated himself got alright also.

Q.6568. Did they apply the mallein test to the apparently glandered horses? A. Yes. With one of these horses when they tried the mallein test, the temperature instead of going up went down a degree. In the other cases the results were indefinite or not well marked."

We have quoted this evidence in full owing to its importance. It is the keynote to the belief of the

\* See Appendix F, C. of E. Rem., p. 368.

Remount Authorities in the matter of glanders. We do not intend to examine here the statements made by the witness, but may anticipate what has to be said of this matter in Part III., by stating that the Veterinary Committee appointed by the Commander-in-Chief directed the Civil Veterinary Surgeon to select his own cases of "new sickness" to bring before them. These animals were destroyed and on post-mortem examination found to be glandered.

The evidence brought forward as to the Remount views on scabies and glanders was the growth of many months. The Civil Veterinary Surgeon referred to in the above evidence had previously been in a Cape Depot, and he, and later another, had not only spread erroneous views as to the nature of the disease, but had discounted the opinion of the military branch on the growth and spread of glanders in Remount Depots and farms. Further, being the men on the spot, they were credited with knowing more about the matter than a man hundreds of miles away at the end of a telegraph line. Unfortunately, the "new sickness" and "pyæmia" opinions were listened to not only by the Remount Authorities but also by their administrative veterinary officer, under whose supervising professional care all remount depots and debility farms in South Africa (other than Natal) were placed. He knew that all of these were congested, and that the congestion increased every month; he knew disease was present, but apparently accepted the remount view of mange and the opinion of his civil subordinates on "pyæmia" and "new sickness." We do not urge this to condone what followed, though his depots and farms were hundreds of miles apart, and a man must to an extent depend upon the reports of those immediately in charge. But it was his duty to insist upon systematic periodical inspection of every animal on these farms, and to investigate the nature of the diseases ravaging them, to which so little importance was attached by the layman. There was no systematic inspection enforced or provided for; the officers' commanding farms and depots raised the greatest difficulties and objections to having horses caught up for this purpose; it occupied several hours of the limited staff they were allowed, and disorganised their work. This disorganisation was especially marked in Remount Depots, where, day and night, horses were being got ready to proceed to the front, or new horses landed. Further, the condition of the horse population of Cape Colony, see p. 185, had opened the eyes of the Remount Authorities to the number of animals available on the spot, and to the staff of the Cape Depots, already greatly overworked, fell the additional duty of travelling about buying.

Month after month of 1901 passed, and beyond the fact that these depots were congested and the farms full of sick, nothing was really known either of the nature of the diseases infecting them, or of the number of animals attacked. Monthly reports of disease, were called for, and after great

delay and difficulty obtained. It may seem hard to inflict further work on already overworked officers, but returns of disease are the only means of feeling the pulse of the army in the Field, without which everything is darkness. These returns let in light; pyæmia came to the front, and the appalling extent of mange was realised. The light-hearted manner in which glanders and mange had been regarded by the Remount Authorities was evidenced by the way they continued to pour thousands of horses from the north every month into the Cape Depots. The result of this was now about to be revealed. These horses for months had been coming from everywhere without inspection; they were turned out without inspection and remained out uninspected. By the middle of the year the returns of disease had made it possible to obtain an insight into the veterinary contents of Remount Depots and Debility Farms. The results were most disquieting. Mallein was directed to be used on the "pyæmic" cases, including those which were reported as having broken out again after being cured! Mallein reactions—frequently a difficulty in South Africa—were in these and similar cases repeatedly described as "not characteristic," or "might be produced by the irritating nature of the fluid." It was evident that the difficulties of mallein had not been studied nor its use fully understood,\* nevertheless, between February and August, 1901, 1200 clinical cases of the disease had been destroyed in one depot and its debility annex. It was an earnest of what was to follow. In September Major Blenkinsop, D.S.O., having been appointed S.V.O. Remounts, set to work to clean out this Augean stable.

Between September and December he caused

9000 cases of Glanders

700† „ Mange

2000 „ Debility, Injuries, etc.

to be destroyed in the Remount Depots and Debility Farms in Cape Colony alone, a total of 11,700 destroyed in less than four months!

During the above period, 2000 animals died in addition to the above. As evidence of the mass of disease, it may be mentioned that there were over 7000 cases of mange in these depots and farms in September, and between that date and December, no less than 17,000 cases of mange had been brought under treatment.

One might have thought that this stupendous calamity would have opened the eyes of the officers of the Remount Department, yet the evidence given above by Colonel Darby to the Court of Enquiry was tendered six months after the depots and debility farms of the Cape had been purged, and eight months after the Veterinary Committee sat which decided that the cases of so-called "new sickness" at Johannesburg were glanders in an acute form.

\* One C.V. Surgeon with the Remount Department was directed to keep his mallein in the dark and in a cool place. He buried it in the dung pit!

† There died in addition 248 cases of the disease.

Such is the blackest veterinary page in the history of the war. It demonstrates the dangers arising from hiding away large numbers of horses without adequate supervision and inspection, and it shows the want of veterinary organisation. Farms presented a fatally simple means of getting rid of war-worn and debilitated horses. Those with a knowledge of this class of work in the public service knew how easily horses turned out may be overlooked or forgotten, and, in the absence of strict supervision and periodical inspection, are bound to be neglected.

Not only is periodical inspection required to ascertain the progress made by the debilitated, but also to pick out those fit to take the Field again. Hundreds upon hundreds of horses clogged the depots and debility farms during 1901 that ought to have been at the front. Through want of systematic periodical inspection they were overlooked. Inspections are also required for another purpose, *i.e.*, the early detection of disease. Assuming an ideal system had been followed in these debility farms, and every animal carefully inspected on arrival, temporarily isolated, and then turned out when considered safe, even such a system as this does not relieve the administrative and executive officers from the duty of carrying out frequent inspections for the detection of disease and injury. It is the very life of the system, and neglect can only be followed by disaster.

The difficulties in the way of the Veterinary Service with the Remount Department in carrying out a sound system are not regarded as light. There was extraordinary pressure of work at the base on the arrival of horse-ships; landing and inspection of cargoes; inspection and despatch of animals to the front, and duties in connection with the purchasing of remounts. The farms were scattered over a sub-continent; the railway was unsafe, so that trains only ran during the day, which still further increased the difficulties where economy of time was of the utmost importance. Under these circumstances the tendency to trust to the men on the spot was perhaps natural. Two of these, by dire misfortune, held extraordinary views on the nature of glanders and farcy, and their attitude on the question not only assisted in the spread of disease, but also educated the Remount Department on wrong lines.

The layman interfering in technical matters can always, when he comes to grief, shelter himself behind his ignorance, but no such excuse can be extended to the professional man. The administrative veterinary service with remounts trusted too much to the reports received about the harmlessness of the disease, and leaned too heavily on its subordinates. The logical position in the public service is that if by so doing one comes to the ground, no sympathy can be expected, or error condoned, or there would be an end of all responsibility. The possibly extenuating circumstances we have urged would carry more weight if it could be shown that the debility farm easiest of access to the administrative centre was free from disease. Unfortunately, it was among the worst infected.

We again repeat that this work with debility horses had no right to be undertaken by Remounts, who possessed neither the knowledge nor the staff for carrying it out and whose hands were already full to overflowing. It should have been a distinct branch possessing its own lay and technical staff: but it was part of the policy of the Remount Department to allow nothing connected with the horse question to pass into other hands, and it had no belief at the end of 1899 and beginning of 1900, that the trouble foretold by the veterinary service would come true.

Though we have placed on the shoulders of the veterinary service the fullest measure of blame, we cannot shut our eyes to the evil genius of Remounts seen throughout; their light-hearted references to two of the greatest scourges of equine life, and the mixing together, from the first days of the campaign, of healthy and war worn animals, sound the key note to one of the greatest veterinary disasters of modern times.

"Debility" horses might have been found at almost any railway station on the lines of communication awaiting transmission to the remount department. Besides these, in the middle of 1901 collections existed at places provided by local commanders of districts, the existence of which was perhaps not even known to the Remount Department for some time. These places were without organization and under officers selected by the local authority as being for the moment out of employment. It would have required quite a distinct staff to go round and mark down the various collections of derelicts, and a still larger and highly organized staff to look after them. Yet it was of the utmost importance that every horse that could be salvaged should be.

With the Columns operating in Cape Colony there were depots where horses were taken in for rest and recuperation. All these were under General French and looked after by his officers. They contained many hundreds of debilitated horses, quite apart from those on the special debility farms. Similar centres were started by other Columns, but were at first unauthorised, and sometimes used as a means of hiding away horses against a rainy day, though most of them consisted of animals requiring a rest. Experience showed that these unauthorised collections were frequently bad owing to a want of proper supervision. In principle, the practice of distributing the sick over many small, rather than a few large, centres had much to recommend it, owing to the great difficulty of finding the needful grazing which was the essential factor towards recuperation. Towards the end of 1901 regimental rest camps were authorised for war-tired horses (p.196), and were an unqualified success, for the Columns were directed to leave men behind in charge of these horses, though the numbers in the Columns were correspondingly reduced. It is unfortunate that this system was not introduced earlier, but there were military difficulties, as at that time Columns could not spare the needful men

to look after them, and without these the horses starved.

One more feature in connection with debility horses may be mentioned. In addition to those kept for recuperation in Remount Depots and Farms, large numbers were sold and found their way to the ports, as no sales were allowed in the interior, after the experience of horses so sold finding their way into the hands of the enemy. These sales at Cape Town gave rise to considerable scandal, both in 1900, as mentioned at p.139, and again in 1901, and were finally forbidden owing to the cruelty inflicted, and the obviously unfit condition of these animals for work of any kind.

There was a feeling, however, among the civil population of Cape Town that with care and time the horses so rejected would recover, and the Colonial Government was induced to purchase a few hundred with the object of feeding them up, and showing the military authorities what could be done with the *débris* of war. It was not long before they found out, what we had already discovered, that once animals passed beyond a certain stage of debility they would die after lingering some time. The majority of the Colonial Government purchases behaved in this way, and in despair they invited the Chief Veterinary Officer of the Civil Department (Dr. Hueteon) to give them an opinion as to the best method of dealing with them. His opinion was that the only possible source of profit would lie in the Government buying 100 pigs and feeding them on the horses! This experiment is worth remembering, for the Government which bought these horses as a speculation had no intention of wasting public funds, but believed the investment to be a sound financial proceeding.

#### OUTBREAK OF CATTLE PLAGUE.

For some time in this History no reference has been made to cattle diseases; this, however, does not signify that the outbreaks of pleuro-pneumonia so frequently referred to at the earlier part of the war, no longer occurred. During the entire period which has been under review, pleuro-pneumonia and redwater were practically never absent, though by means of inoculation the former was kept under control.

We are now compelled to bring cattle disease under notice, as during 1901 the most dreaded of all plagues, "rinderpest," appeared during the height of the military operations previously recorded. It is not known how the disease became introduced. There is reason to believe that isolated cases existed in 1900. At p. 93 there is a note that as early as July, 1900, a disease which could not be distinguished from it was seen on the Zeerust road, among cattle brought in from Bechuanaland, and there were post-mortem examinations held in Pretoria in August of the same year, which were possibly cases of the disease. On 3rd March, 1901, cattle plague was reported in German S.W. Africa, 600 miles north of the Orange River. The fords

over this river were accordingly occupied to prevent cattle crossing. On 22nd April there were rumours of the disease in the vicinity of Mafeking; a month later it was reported at Ladybrand in the Free State, and on 6th August it was notified at Aliwal North, in Cape Colony. These latter cases were seen by expert officers of the Civil Veterinary Department of the Cape, who already had vast experience of the disease, so that the diagnosis was no longer doubtful. The anxiety which this outbreak occasioned was confined to the veterinary authorities; the military had seen too much of cattle disease to realise the gravity of the new trouble, and it was only with the greatest difficulty that any measures could be locally adopted to control the outbreak. Such measures are more than difficult in time of peace; in war they are quite impossible. It is obviously impossible to recast at a moment's notice the transport arrangements for troops in the Field, yet on the cessation of all such movements, together with isolation of contacts and destruction of affected, the control of the trouble depends.

By 15th August, 28 cases of the disease had occurred at Aliwal North, and others were reported 15 miles away. At this time there were 8000 Government oxen belonging to the Cape Transport Service, while the total number engaged in military operations throughout the area of the war was no less than 95,700. By 26th August 1000 cattle had been inoculated with bile against the disease at Aliwal under arrangements made with the Civil Government of the Cape, who started a bile station, but the disease was increasing; by this date 149 cases had occurred in Aliwal. At the end of the month the disease had reached native territory in the Transkei, due to loot cattle having been sent there for sale by the military authorities, in spite of the warnings which had been issued and the recommendations made. It may at once be said that in this matter of the movement of cattle, some Staff Officers charged with Transport duties could not be made to understand the extraordinary gravity of the disease; they had seen too much sickness among stock to attach importance to it, and were known to take local advice from the inhabitants instead of being guided by expert opinion. The spread of cattle plague in Cape Colony, and throughout the area of the war, was regarded by the rebel population as a blessing. It might bring the war to a close when other measures failed; even those not rebellious saw in it a prospect of material advantage, for the price of cattle would rise, while the unemployed, with some knowledge of the previous outbreak in the Colony, saw prospective employment as inoculators, and in other ways.\* On 14th September the disease had appeared far away on the west of the Colony at Kimberley; by the 25th the animals were dying faster than two veterinary officers (C.V.S's. E. R.

\* A man in military employment, an authorised inoculator, was found in 1902 to have sold bile at £10 a bottle!

Edwards† and Jelbart, now Capt. A.V.C.) could collect the bile. This outbreak was believed to be due to rinderpest stock being introduced among Government cattle by the enemy. The disease was also being spread, not only by military movements but by the traffic in bile for inoculation. A trader was convicted of having sold a few ounces for several pounds sterling, though the traffic in rinderpest bile was illegal. Wherever that man went with his bile a focus of infection was established. In spite of the extension of the disease it seemed impossible to impress the Transport Military Authorities with the gravity of affairs. Cattle from the Kimberley district were actually under orders to proceed to Malmesbury, close to Cape Town, a clean district 900 miles away, at a time when no less than 2000 cases of the disease had occurred in the Kimberley district. At Kimberley laymen had been provided with bile by the Transport authorities to inoculate cattle in a clean area! Again, local unskilled advice was acted upon, and even a Dutchman proposed to be placed in charge of a bile station! Dr. Hutcheon, the P.V.O. of the Civil Veterinary Department of the Cape, had warned the military veterinary authorities of the danger of using pure bile for inoculation, and the substitution of glycerinated. This warning had not been disregarded in the Cape excepting by lay authority. The danger of a little knowledge was very evident. A Transport officer at a large centre, learning that bile gave protection, did not realise that it was purely temporary, but believed that the animals so inoculated were "salted," and accordingly of greatly increased value. Animals so protected (?) were sent out with Columns and moved up and down the line, as it was believed they were safe.

By the end of October cattle plague had spread far north of Kimberley, in fact, even north of Mafeking, close to Rhodesia.

While all this was occurring the plague had gained ground elsewhere. In the Orange Free State it rapidly spread north and south from Ladybrand, through the movement of Columns. In the Transvaal both the west and the north were infected by the same means. In fact the whole area of the war was contaminated.

It can be safely said, so far as Cape Colony is concerned, that there were extensions of the disease, due to movements of cattle, which need not have occurred had attention been paid to the elementary principles of prevention urged by the veterinary service. The ignorant Transport conductor, often a Dutchman, the irresponsible advice of casual acquaintances among the civil population, and the prejudice of those who hoped to make something out of it, more often fitted in with the pre conceived notions of the Transport Staff, and were adopted accordingly. Nor was this confined to Cape Colony. The Transport Department at Pretoria was responsible for the spread of disease by means of loot and other stock they

wished to dispose of or move—movements wholly unconnected with military operations, and which, therefore, were not of an urgent, or at any rate, imperative nature. Nothing in the above remarks applies to military tactical movements; the whole is directed against movements which were not connected with the operations in hand, and generally amongst that class of cattle most liable to convey infection, *i.e.*, loot and impoverished stock. They are further directed against the unauthorised inoculation of healthy cattle with pure bile, and the utter, and sometimes wilful, disregard of veterinary advice by some members of the Transport Service.

It takes three months to prepare cattle plague serum; before the end of 1901 serum stations had been established at Aliwal North, Kimberley and Pretoria. A large bile station was also formed in the Free State near the focus of infection. From December the control of the disease became possible. The machinery employed will be dealt with in Part III., but without the skilled assistance of the Civil Veterinary Department of the Cape under Dr. Hutcheon and Mr. Borthwick, and of Drs. Turner and Theiler in the Veterinary Laboratory at Pretoria, it would have been impossible to deal with this scourge, which, be it remembered, was actually fought and controlled in the middle of active operations. This, indeed, is a record, and a triumph of science; it is the highest tribute which can be paid to the genius of Professor Koch.

In the following table the strength in round numbers from March to December, 1901, of the transport oxen in South Africa is given, together with the number of casualties. To appreciate the difficulties of dealing with such a disease as rinderpest in war, it must be remembered that the thousands of animals representing the monthly strength of the transport, were more or less constantly on the move.

	Strength	Deaths
March	66,600	?
April	76,400	1800
May	85,800	3700
June	96,900	7800
July	96,000	10,700
August	95,700	16,200
September	86,700	16,300
October	78,500	14,500
November	73,000	9700
December	71,200	9000

These strengths are of military transport only, the property of the public, and do not include the protection or loot stock, which at times, together with sheep, rose as high as 200,000. These animals, as will be explained in Part III., were placed on various farms throughout the area of hostilities, some eighty places being selected for their accommodation. The mortality amongst this class will never be known.

Over 8% of the transport oxen were dying in June, mainly for want of food, from exposure during mid-winter, and pleuro-pneumonia. In July the death

† Now Board of Agriculture.

rate was over 11%. In August, when rinderpest had a firm hold everywhere, 16,200 animals died, nearly 17% of the strength; rather more died in September, or roughly 18%; in October it was 17%, and in November and December, at which time an impression had been made on the disease, the mortality fell to under 12%. These appalling figures give some notion of the severity of the outbreak, and the additional work and responsibility cast upon an already over-burdened and small veterinary staff.

During the time we are speaking of, and later, not for one moment was the military position altered by the animal plague which had broken out.\*

\* The Commander-in-Chief in his despatch of 3rd Dec., 1901, refers to the military operations of 8th Sept.-8th Oct. being somewhat impeded by the prevalence of cattle plague. He adds that the disease was spreading, likely to make itself felt in every district and to cause great loss. To counteract this, he refers to the measures for inoculation which, by

Columns still kept the field, the enemy was pushed and pressed, and the disease in this way carried broadcast over the land. There must have been many animals surviving from the last outbreak whose immunity was still secure, and there were thousands inoculated. The whole of the transport and loot stock, the latter numbering tens of thousands of animals, were protected, the bulk of this work in the Transvaal and Free State being carried out under the supervision of Lt.-Colonel Flintoff and Major Sharp, A.V.D. The special work of the latter officer will be brought to notice in Part III.

throwing the animals out of work for a week or two, considerably reduced the efficiency of the ox transport for at least a month. In his despatch of the 8th Dec., he says that rinderpest is still raging, but that the process of inoculation and the care taken of uninfected animals have combined to prevent the movements of the troops from being seriously interfered with. In the above despatch he adds that "the successful coping with the disease has surprised the old inhabitants of the country."



1902

ORANGE FREE STATE.

OPERATIONS IN THE SOUTH AND WEST.

JANUARY-FEBRUARY, 1902.

The last reference to fighting in the Southern Free State was made at p.174. The operations continued to be of the "clearing" character, and later, C. Knox, who still commanded in the south, "drove" up the eastern side on to the block-house line Thabanchu-Ladybrand, but hardly a living thing was met. This observation shows how rinderpest was spread by the movements of Columns, for it was through this area it had travelled from Ladybrand to the Orange River. Meanwhile, matters on the south-western side of the Free State had suddenly become very active, and Rochefort's five columns were sent back (p.174) and raided between Philippolis and the Modder River, though not always with success. The transport of one of his columns was captured and entirely destroyed on 25th December,\* and another column, that of Du Moulin, was attacked on the night of 27th January, the camp "rushed," all the horses, 91 in number, lost by fire, together with 120 mules. The losses among the men were correspondingly heavy, and included their gallant leader.

Early in February Rochefort went north from Fauresmith to Boshof, and there combined with Sitwell. The latter had an independent column which raided Griqualand. On 13th January it had a sharp encounter with the enemy 80 miles east of the Modder River, and suffered many casualties. On 5th February it reached Kimberley, and on 16th was again engaged, with many casualties. Rochefort's journey north was due to this, but the opposition disappeared.

OPERATIONS IN THE NORTH-EAST FREE STATE.

ELLIOT'S BIG DRIVES.

JANUARY-MARCH, 1902.

We last saw Elliot's force at Lindley in December, p.177, replenishing after the vain effort to obtain touch with De Wet subsequent to Tweefontein. Elliott was out again in the course of a day or two scouring the oft-travelled road to Reitz; then north towards the Vaal to the block-house line; then back

south through the Liebenberg's Vlei. There was no sign of the enemy, and Lindley was again made for, as the troops by now were on reduced rations. He arrived there on 4th January, having covered 60 miles that day, and, in five days marching, had travelled nearly 250 miles. Particular attention is drawn to this remarkable marching, which, as the "Official History" remarks,† is "a feat which the most brilliant rewards have seldom been able to extract from troops, especially under service conditions of such rigour." These marches were not performed by a handful of picked men, but by a mass nearly 5000 strong. Fifty miles a day for five successive days! Supposing that the Cavalry Division under French, which left Ramdam in February, 1900, had been composed of conditioned well-fed horses, what might it not have effected? Elliot's losses from exhaustion in these marches are unknown, they were doubtless heavy. The marches stand out as the most remarkable distance rides under service conditions ever executed by a large body of mounted troops, the difficulties being intensified by an African midsummer. Elliot was a good horsemaster; his subordinate Commanders included men who not only understood this art, but also that of living on an enemy's country.

After only two days' rest for his tired men and horses he once more left Lindley owing to the presence of De Wet, who was moving west to cross the line. The following day, the 8th, De Lisle and Fanshawe came in contact with the enemy; by means of a 50-mile march they retained it, and compelled De Wet to fall back to the east.

Everything now depended on keeping De Wet on the move. Elliot's force required a rest. Byng, who had been resting close to Lindley now moved on Reitz, and was joined by two other columns, Garratt's and Dunlop's, returning from block-house line construction. By 20th January these were massed, and drove up and down the Liebenberg's Vlei, but with no success. Four more columns now appeared: Barker from Winburg, Dawkins from Harrismith, Rawlinson from Standerton, and Rimington from Frankfort. Elliot, in the course of a day or two, was rested and able to move, and the whole mass of columns swept south-east towards the Harrismith-Bethlehem block-houses, Byng being left behind near Reitz.

De Wet all this time was within the area traversed by the troops, and on 1st Feb. intended to move south in the direction of Winburg out of the block-house area. He issued instructions for his Commandos to assemble between Heilbron and Reitz, and a Commando near Byng, in endeavouring

\* The "Official History," vol. iv., p. 430, records that three of the native drivers of the transport were shot in cold blood. Some of the prisoners were stripped naked and compelled to walk in this plight more than 30 miles across the burning veldt. Such punishment has to be witnessed to be realized. It was Midsummer, and the sun acts as a cautery on those parts of the body which are always protected.

† Vol. iv., p. 399.

to carry out its orders was attacked with vigour, and the guns taken at Tweefontein re-captured. Meanwhile another drive was being organised, and De Wet and his following were to be driven west by the forces now near Harrismith. Accordingly, the mass then turned about and first deployed along Liebenberg's Vlei for fifty miles, then faced west. On the night of 5th Feb., 9000 men were covering a line 80 miles in length; \* their duty now was to maintain this line day and night "over country which was often broken by intricate hills and screened by rushing torrents," constituting "a feat of discipline, endurance and skill, which, as far as we know, is unparalleled in the history of war."† The railway was 50 miles away, and the time to be occupied in searching and driving this strip of country was three days and two nights. The ends of the driving line rested on block-house lines, and were supported by other columns which were to "cut in" as the gigantic crescentic line of horse-men advanced. The railway block-house line had been strengthened by additional infantry, seven armoured trains patrolled it, converting night into day by their search lights, and a battalion of Mounted Infantry lay available to gallop to any point at a moment's notice.

The skill required in bringing this extraordinary military engine into effective being shows what good staff work is capable of effecting. Not only had this mass of horses to be assembled and then spread out so that contact from one end of the line to the other was never lost, but man and horse had to be fed as they stood in line, and the food supply to be on the spot exactly where required.

De Wet and his following of 1800 were in the net; he was accurately informed from without by heliograph of all movements, and his openly expressed contempt for block-house lines was about to be tested. He directed his men to break out where they could. He determined to rush the block-house line. The cordon which surrounded him and his stalwarts on the morning of 6th January consisted of 300 block-houses, seven armoured trains, and 17,000 men;‡ "not one of whom was to be off duty for three days and two nights. ||

De Wet with 700 men marched south on the 6th while it was light, and by midnight had reached the wire fence of the south (lateral) line of block-houses without arousing suspicion. The pitch dark night served him well; the wires were cut and his whole force was across without the inmates of the block-houses being aware. He was followed by 600 head of cattle which rushed the fence and drew fire with but little loss. He continued his march for 40 miles and reached the Doornberg. The northern (lateral) line of block-houses was burst through by

another party who suffered some loss. Meanwhile, on the morning of the 7th, the vast line swept forward towards the railway line of block-houses; as the day wore on the excitement increased, for many of the enemy were known to be in the cordon. As night approached "Precautions were redoubled; every obstacle that ingenuity could invent was improvised; the last reserves of ammunition were distributed and their lavish use enjoined; scarcely a soul slept. All night long without intermission the rifles crackled up and down the line; all night long the searchlights of the armoured trains could be seen to the north and west flashing broad white beams over the dark veldt; and all night long, outnumbered by forty or fifty to one, the peasants of this indomitable district scoured the deadly cordon searching for a hole or cranny of escape, their dark figures silhouetted against the glare of the searchlights."\*\* By the evening of the 8th the total killed, wounded or prisoners numbered 286, but, as we have seen, De Wet was not amongst them.

#### ELLIOT'S SECOND DRIVE,

##### LANGVERWACHT.

FEBRUARY 13TH TO 27TH.

The first drive was barely over when preparations for another on a much larger scale were made. In the first operations only the centre of the North-east Free State had been swept from east to west. The circumference was now to be dealt with. The North-east Free State is an irregular square bounded on the east by the Drakensberg, on the west by the block-housed Free State Railway, and on the north by the Vaal. In the present operations a portion of the Transvaal was included, so that the north line was the block-housed railway running from Johannesburg to Natal. The southern line of the square was the block-house line running from Kroonstad to the Drakensberg. The first movement was to occur south of the block-houses, as far, indeed, as the Doornberg close to Senekal, whither De Wet had proceeded. The space to be swept was 340 miles in length, and varied from 50 to 60 miles in width. Three sides of the square had to be dealt with, swept from opposite corners simultaneously by a northern and southern group of columns. The southern group having reached Harrismith was to line up almost due north and south, and hold the 65 miles of the Wilge River lying between a point 20 miles south-east of Frankfort and Harrismith. The northern group of columns sweeping from the Free State-Johannesburg Railway, on both banks of the Vaal, was to travel east until a point 20 miles south-east of Frankfort had been reached, when the whole line of troops, now 35 miles long, would wheel south, still hugging the Natal Railway up to Paardekop, where additional troops were to join owing to the increasing length of the line. The enemy should

\* Roughly the distance from London to Peterborough.

† "Times History," vol. v., p. 471.

‡ "Times History," vol. v., p. 478.

|| Among Rimington's other instructions to his Column appears the following:—"Every man from the Brigadier to the last native to be on duty, and to act as sentry for one-third of the night."

\* "Times History," vol. v., p. 480.

now be contained between the Drakensberg on the east, Elliot and the Wilge on the west, and kept in this area by the southern line of block-houses from Harrismith to Van Reenan's Pass, while the northern group of columns drove them south on to this block-housed line. The latter was temporarily strengthened by six columns and all the permanent troops of the district that could be placed in position. These details are necessary if we are to understand what was expected from the animals, on whose efforts success depended.

The movement began on 14th Feb., the troops having been given a few days' rest after the first drive. In fourteen days the operations were to be completed. The bulk of the work fell to the northern group of columns, represented by Rimington, Byng, Rawlinson, and later, Dixon from Paardekop. The southern group under Elliot consisted of De Lisle, Fanshawe, Holmes, Marshall, Lawley, and Du Cane, the two latter being fresh columns. There is nothing to record of the movements of this vast and complex machine between the 14th and 23rd February. Meanwhile, De Wet, who had retired to the Doornberg after the first drive, had actually re-crossed the block-house line—with loss—and deliberately placed himself within the area cleared by the first drive. The group of southern columns lining up on the Wilge drove him and his force in the direction of Reitz, and here he met President Steyn. "The two watched for a time the oncoming of the tide of troops which lapped without a break over every horizon. Soon they had to be gone, for Elliot was bearing down on the Wilge. On February 22nd they sidled away up the Cornelis River with eyes on every side, falling in continually with groups of burghers who were flying in all directions from one danger to another."\* De Wet, who was now enclosed, determined to break out to the north, and with President Steyn and 800 men they forced the cordon of troops on the night of 23rd of February at Kalkrans on the Hol Spruit, at a weak point between the columns of Rimington and Byng. The action is known as *Langewacht*. The enemy charged through the thin line, rolled it up from end to end sufficiently widely for their purpose, and under a desperate fire the whole mass of 700 men, the Government with De Wet and Steyn, and led horses, got through. They inflicted severe loss on the 7th New Zealand M.I., who lost 58 killed and wounded, while 80 horses belonging to the enemy were lost. De Wet lost everything in the way of transport and cattle. On 27th, the last day of the drive, 778 prisoners, 50 of the enemy killed, 25,000 cattle and 2000 horses were the total result of an operation which will always be remarkable in military annals.

#### ELLIOT'S THIRD DRIVE, MARCH 4TH TO 13TH.

Three days after the operations last described a further elaborate drive was projected from the

point where the various columns had now been brought together. Elliot with nine columns, total 10,000 horses, was to sweep north on a front of 30 miles in a reverse direction to that traversed by the northern group of columns during the last operations, until he reached the Frankfort-Botha Pass block-house line. The other and smaller sections of the force, consisting of 5500 horses, were to march north-west across Elliot's rear and form an oblique line 30 miles long, the left end of which was to rest on Lindley. The second stage in the operations was for Elliot's northern force, now on the block-house line, to turn about and wheel to its right, so that it came into line with the southern force still resting with its extreme left on Lindley. The combined forces were then to advance westward in one long line, Lindley-Frankfort, and close in on the railway. Elliot started north on 4th March, and reached his first position on 8th. The southern column started on the 5th. On the 10th the two forces, now in the second position, moved westward in one long line across the north-east Free State towards the railway. The drive was over on the 13th, and the results were very poor. As early as 5th March De Wet had escaped westward across the railway line, and was now on the opposite side of the Free State. He rushed three block-house lines with but little loss. In front of the driving line on the 10th was one Commando which, on a front of 60 yards, deliberately charged the block-house line, trampled it down and escaped. During the above operations four columns dropped out, being withdrawn during the first stage to strengthen the Western Transvaal forces in a series of disasters yet to be considered.

At the end of the drive, Rawlinson's force was withdrawn to join with Basing's column from the North-west Free State in search of De Wet. Owing to wet weather it had a very bad time after crossing the railway, and found itself at Klerksdorp on 21st March without learning anything of the fugitive.

#### WESTERN TRANSVAAL.

##### YZERSPRUIT, TWEEBOSCH.

FEBRUARY—MARCH, 1902.

We have reached a point in this history when the military operations have undergone a very great change. We have traced them from the time when battles extended over miles, and the backbone of every operation ultimately rested with the infantry. We have seen how the army became transformed from one on its feet to one which was mounted, and some of the difficulties attending so radical a change have been drawn attention to in connection with horse wastage. We have watched the operations become so altered in character that, instead of employing vast bodies of men, numerous almost microscopic forces were the only means of coping with the situation, and finally the employment of hordes of mounted men literally sweeping a sub-Continent in a long thin line. With the

\* "Official History," vol. iv., p. 426.

enemy the educative influence of these changes was not neglected. Side by side there grew up in him one equally great; he no longer clung to cover or waited to be attacked, but showed himself with boldness and attacked when it suited his case. Long months of campaigning had given him the confidence which he at first lacked. Mobility he never lost. We have now to see the highest expression of the change in his tactics, the resolute attack of large masses advancing at a fast pace and distracting their enemy by fire from the saddle, and impetuously riding over them.

Every one of the tactical changes evolved during the campaign found its reflex in the altered conditions under which the animals had to serve. It began with a sudden and enormous increase in mounted riflemen untrained to the care of animals. Next followed changes in the artillery, fewer horses being required as guns were reduced in number. Then mobile columns came into play, adding vastly to the number of animals and to the casualties. Later their complement, the block-houses which, by protecting transport, enabled the services of the slower moving ox to be more fully utilised, though later the ravages of rinderpest had seriously affected this admirable source of energy.

The impressive drives wore down vast numbers of animals by the enormous distances covered, while the night raids proved their salvation by allowing the day for feeding and rest. We are now at a period when the day and the night were both utilised for mounted operations of almost unparalleled magnitude. The horse had once more fallen on evil days, and the unmanageable numbers of sick which resulted, looked at first sight as if the veterinary service had learned nothing from over two years experience in the field. It will, however, be shown that the sick resulted from neglect of the elementary fact that horses require time for both food and rest. Though men are saved great physical exertion by being mounted, the greater mobility given them does not decrease the period required by the horse for feeding and recuperation.

We last saw the Western Transvaal in January. (p. 182), where, for the three previous months owing to the activities in the Eastern Transvaal, Orange Free State, and Cape Colony, but few columns had been operating in this area. It suited the tactics of the enemy to burst out and die down, apparently remaining extinguished, but in reality only resting men and horses for fresh efforts later on. The burgher became as weary of Commando as his opponent did of Columns. The one, however, could dissolve at will and rest securely, while the other was kept continuously at work, passing in a day and a night from one theatre of war where his presence was no longer required, to a distant one where the smouldering fire had broken out afresh. Men and horses grew stale under the conditions of continuous warfare. The *clash* and dash of the enemy during the latter stages of the campaign were due to the beneficial effects of rest on both men and horses.

For five months matters had been relatively very quiet in the Western Transvaal, and opportunity was taken to push on with the construction of block-house lines. The latter, in the Western Transvaal, were not so numerous as elsewhere. Pretoria and west for 60 miles was enclosed in a wire fence. Johannesburg, Krugersdorp, Frederickstaad, Potchefstroom, Klerksdorp and Vereeniging lay within another fence. Mafeking, Lichtenburg, Wolmaranstad and Vryburg were points in the circumference of an immense area surrounded by wire, but not sub-divided as had been found necessary in the case of the North-east Free State and the Eastern Transvaal. Practically the whole northern portion of the Western Transvaal was untouched by fencing. The great tilting ground of Methuen and De la Rey, lying between Mafeking and Rustenburg, still lay exposed. The scene of all the subsequent operations in the Western Transvaal was confined to its southern end lying between Lichtenburg in the north, to the Vaal on the south, and from Klerksdorp on the east to Vryburg on the west, roughly a square with sides of 120 miles.

In the early days of February Methuen left the Field. For two years he had been incessantly marching, during which time he had covered some thousands of miles.\* The command of the Column now fell to Colonel Von Donop, whose orders were to occupy Wolmaranstad, and using this as a base operate in the surrounding district. Wolmaranstad had to be supplied from Frederickstaad, fifty miles away, and no difficulties were encountered with the first Supply Column which left early in February.

The second Convoy left for Frederickstaad on 25th February, it consisted of 145 mules and 6 ox waggons, with an escort of 480 men, of whom 250 were mounted. On the morning of 25th Feb., the convoy was within fifteen miles of its destination, and had started before dawn with four waggons abreast so as to reduce its length. At this moment it was surrounded by a powerful Commando under De la Rey, who developed the attack at *Yzerspruit* by a volley in the face of the Column, which sent panic-stricken mules to the rear; but the rear was simultaneously attacked, and from both ends a fine defence was made. The enemy, employing the charging tactics, came up over and over again only to be beaten off. But the next stage of De la Rey's scheme had yet to be carried out; he had arranged for a third Commando to strike the flank of the Column, and after some delay it rode up and delivered its attack at the gallop, but was driven off. For two hours longer did the Column hold out, until ammunition failed; 187 men were killed or wounded, 170 horses and 1450 mules killed or captured, and 2 guns lost.

\* The late Major Crow, A.V.D., accompanied him in all his marches as S.V.O., until retired for age early in 1902. Like his chief he never tired.

Kekewich was on his way to Klerksdorp, together with Hickie's (now Grenfell's) force, when, at Hartebeestfontein on 25th, he heard of the loss of Von Donop's Convoy. He at once made for Wolmaranstad, which he reached on 28th. He was there joined by Yeomanry sent out from Klerksdorp. A Flying Column under Grenfell, 1823 horses, was also sent north to look for De la Rey. Kekewich evacuated Wolmaranstad and arrived at Klerksdorp on 4th March, and Grenfell after a fruitless search returned to Klerksdorp on the same date.

Lord Methuen at Vryburg, hearing of the disaster to part of his late Column, at once organised a force to attack De la Rey. In view of what occurred, it may be well to say that the force he scraped and raked together was a mixture from fourteen different units, and consisted of Paris' "Kimberley Column" (which we have not met with since the invasion of the Colony by De Wet), together with whatever could be laid hands on, the force eventually numbering 1200, of which 890 were mounted troops, mainly untrained Yeomanry. Attached to Paris' Column was a Mobile Field Veterinary Hospital under Civil Veterinary Surgeon D. T. Tamblyn.\* Methuen left Vryburg on 2nd March, travelling north-east through a badly watered part of the Transvaal, and made for a point ten miles south of Wolmaranstad, where he expected the Column under Grenfell to meet him. On the 6th March, Methuen had arrived at his camp at *Tweebosch*, lying in the angle formed by the Great and Little Hartz River. He was still 25 miles south of his objective, and, though he did not know it, Grenfell was 36 miles south-east of him. Between Grenfell and Methuen was De la Rey with a powerful Commando.

On Jan. 7th Methuen's Column moved forward, the transport being in front (the ox before the mule in order to regulate the pace). An attack from the rear was expected, Methuen having been warned the previous day that De la Rey was in the vicinity. It was still dark, and for two hours the slowly moving mass crawled along. Behind was De la Rey with 2000 men, probably the pick of the Federal Forces, following stealthily in its tracks, and waiting for the first streak of dawn. At 5 a.m. a crash of musketry burst on the rear and flanks of the Column, the ox waggons were halted, and the mule waggons directed to close up, but the majority dashing ahead passed the ox convoy and went racing over the level and unbroken veldt away to the north. Nor was this the only panic; the bulk of the mounted troops guarding the flanks and rear also galloped forward and deserted the guns and convoy,† and the enemy galloping down in their new style poured a terrific fire into the mass from both sides. The gunners who had opened fire were ridden down and destroyed to a man. Around the

ox waggons Methuen placed his infantry, and for two hours these sustained an unequal combat under the inspiring influence of their General. Another small portion of the force, composed of stalwarts, took up a position under Paris in a Kraal about a mile ahead. The fight raged at point blank range, and when the Northumberland Fusiliers ran short of ammunition, an unknown man,\* bearing a charmed life, made several trips with boxes of ammunition from the waggons, and distributed it along the bullet-swept line. It was Civil Veterinary Surgeon Tamblyn.† The party of forty in the kraal fought on after the Convoy had succumbed, and nothing but field guns compelled them to yield, their defences being knocked to pieces by shell fire. In five hours nothing remained of this Column but the killed, wounded, and prisoners (68 dead, 132 wounded), 240 horses were also killed and wounded.

Then followed acts of murder which had become all too common; native drivers were shot, and the whole Indian and Kaffir establishment of the Field Veterinary Hospital were butchered. One Farrier Sergeant of Indian Native Cavalry and two Indian Veterinary Assistants (men carrying no arms) were ruthlessly shot dead after the surrender, and nine Hospital Kaffirs were either killed in action or murdered later.‡

We have entered more fully than usual into the account of this disaster, not only from its intrinsic interest to the veterinary service, but also from the fact that it created a feeling well nigh to consternation, and determined the Commander-in-Chief to concentrate his forces in the Western Transvaal in order to exact reprisals. Henceforth, Klerksdorp was to be the busiest place in any theatre of the war; the action of *Tweebosch* had shifted the whole centre of gravity of the campaign.

Grenfell knew nothing of the disaster at *Tweebosch* until the following day; he then fell back on Lichtenburg in case the garrison there should suffer the same fate. But De la Rey went south and met Steyn and De Wet (who had just passed through the ordeal related at p.211) at a point between Wolmaranstad and Klerksdorp.

\* See *Standard*, 14th April, 1902, whose correspondent describes this gallant act as being performed by a "veterinary surgeon whose name I failed to gather."

† Had this action been successful, it can hardly be doubted that C.V.S. Tamblyn's devotion would have been suitably rewarded. Two horses were killed under him early in the fight, and he was captured but escaped, to be again taken at the surrender.

‡ General De la Rey, the most chivalrous of foes, was in no way responsible for these acts of murder. His young men were the offenders, and it was impossible for him to be in all parts of the field at the same moment. That he knew of the tendency is certain, for the "Times History," vol. v., p. 507, records the fact that he flogged several of his men for rough treatment of prisoners captured at Yzer Spruit. It also states that while he was talking to Methuen, who was then lying severely wounded, a burgher began to remove the gaiter from the unwounded leg under the eye of De la Rey, who personally and forcibly intervened. We have also seen, at p. 180 of this History, what occurred at *Kleinfontein* at the hands of the same men.

\* A Canadian Graduate, now Dept. of Agric., Canada.

† "Of the panic of the majority of the mounted troops, lack of training, insufficiency and inexperience of officers, and above all the heterogenous nature of their composition were the main causes."—"Official History," vol. iv., p. 420.

*ORANGE FREE STATE.*

OPERATIONS MARCH-APRIL, 1902.

*ELLIOT'S FURTHER DRIVES.*

The drive by Elliot obliquely across the Free State which terminated on 11th March was not the last, in spite of its relative unproductiveness. Five columns, Elliot, Barker, Garret, Rimington and Nixon, containing 12,000 horses, were to sweep across the Free State from west to east in one long line, each end touching the block-house lines, which were fifty miles apart. The movement was to be deliberate, and there were no long marches. The operations after passing the Liebensberg Vlei—which is the long central gutter of the north-east Free State lying between Frankfort and Bethlehem—were to depart from the usual programme. A force was to go ahead, followed by a second, these were to do the needful pounding, while a third in the rear was to act as a net, and prevent all escape by closing in up to the Drakensberg and compelling fight or capture.

As early as the sixth day after the previous drive the troops were getting into position, a very short rest for leg-weary horses, and the general operations started on the 19th March. The advance was made from the line Heilbron-Doorncloof, points nearly forty miles apart. Heavy rain night and day did not promise well for the conditions likely to be met with at the foot of the Drakensberg Watershed, which was 100 miles away, and where the operations were to terminate. By the 26th March all but one of the columns was lying between the Liebensberg Vlei and the Wilge River, now both roaring torrents. No means existed for bridging the river. The one column on the eastern bank of the Wilge could not advance without support, and moreover could get no food until supplies reached them by improvised raft on the 28th. The condition of the horses during this time was seriously affected. Rain and cold on empty stomachs made many victims. The Wilge did not fall until 1st April; in the meantime the enemy had had four days in which to scatter. The passage of the river was mainly by swimming, while the transport had to go miles out of its way to cross by the few existing bridges. On the 2nd April it was known that the enemy intended to break through the cordon that night. It was pitch dark and raining, and for some hours before midnight hoof sounds were heard which drew fire; to patrol was impossible. A wire fence ran along the front of the line. "Suddenly at 1 a.m. two trumpets rang out close in front of the line, and immediately after a mob of mingled Boers and cattle burst against the wires and endeavoured to force a breach. The stout strands, and the heavy fire which poured through them were too much for many of the Boers; but at one place in the fence the weight was irresistible. The wires snapped, the nearest picquet was swept away, and some hundreds of horsemen poured over

the place and galloped westward into freedom." \* The results of this drive, which terminated on 5th April, were very disappointing, 76 prisoners and 4800 cattle and horses.

The Columns were now dispersed, those of Nixon and Garret went north, crossed the Vaal and joined B. Hamilton in the Eastern Transvaal, Nixon being sharply attacked before he crossed the river. Elliot proceeded to Harrismith, and from there his Column under Barker marched to Frankfort; Elliot with his remaining Columns traversed the country north-west, passing between Reitz and Bethlehem. He was attacked on this journey, and reached Lindley on 21st April after a month's hard work.

On arriving at Lindley, instead of getting rest the Columns were ordered to march back and make Bethlehem their headquarters, with a view to clearing the Brandwater basin which was now a source of trouble. A week of reconnaissance followed in this mountainous region, at the end of which time Elliot was withdrawn for a combined drive under Bruce Hamilton which we will mention later.

Attention is directed to the continuous work performed by these Columns under Elliot. On the basis of all previous observation it would result in 3000 sick horses a month; as a matter of fact the inefficiency would be below this, for the work was relatively steady, and the general returns of sick were already showing a reduction in numbers. Nevertheless the number of sick was enormous. There were 31,000 horses employed by the thirty Columns alone operating in the Free State, and at the lowest estimate these must have furnished 6000 sick horses a month, including 1,500 died and destroyed. In addition to furnishing a veterinary service for the care of this multitude of sick, it must not be forgotten that rinderpest was still rife and pleuro-pneumonia ever present. Tens of thousands of animals had to be inoculated against these diseases.

*CAPE COLONY.*

OPERATIONS JANUARY-MAY, 1902.

The operations described at p. 181 had relieved a great deal of the anxiety felt for the safety of Cape Town, but the situation was by no means satisfactory. Maritz had been driven towards the north-west, but Smuts was present in supreme command, and was unlikely to take quietly the rebuff his schemes had experienced in the Cape Peninsula. In order to deal with him and his Commandos the long block-house line from Victoria West to Lambert's Bay was projected. The matter has been referred to at p. 181 as one of the most remarkable undertakings in this class of work; 320 miles of wire fencing and block-houses were to be constructed through districts little better than a desert. The line we have seen was begun at both ends simultaneously, and pressed forward with such rapidity that in a fortnight Lambert's Bay had been

\* "Times History," volume v.



connected with Clanwilliam, and had thus interposed an obstacle on the road to Cape Town. At the Victoria Road end matters were slower, the constructional difficulties being due to the unsuitability of the animals employed in transporting the material. The country consists of karoo bush and sand, it is sparsely populated owing to its small rainfall; there sheep and goats thrive, but cattle die, and the only animal used for transport purposes is the donkey. A donkey convoy is excellent if given time, but it must move at its own pace, and that was considered to be too slow to meet the urgency of construction. Ox transport was therefore introduced into a country where no keep for oxen exists, and a large depot was established at Victoria West. It will be more convenient to look at this depot after describing the operations which took place during the construction of the block-house line.

The wire fence from Victoria West to Lambert's Bay was north of the Cape Town railway, and generally speaking about 130 miles away from it. Smuts could see that if erected it would help to deny him access to a piece of country 320 miles long by 130 wide, but he also knew that if it were to be constructed the Columns protecting it could only be fed from depots established much nearer to the scene of operations than those on the Cape Town railway. Such depots were established at Calvinia, Sutherland and Fraserburg, and were being filled up by convoys protected by the various Columns. In the western part of the area were the Columns of Wyndham and Kavanagh at Clanwilliam, and that of W. Doran, lying in an entrenched camp midway between Sutherland and Calvinia. At the eastern end were the Columns of Crabbe, Lund, Capper and B. Doran. While Clanwilliam was busy filling up Calvinia, the Columns engaged in this operation were repeatedly attacked during February by Smuts. On the 5th February W. Doran left his camp to attack a party of the enemy, and with difficulty held his own; on returning to camp he found it had been attacked during his absence, and all his waggons burned, though he arrived in time to save his mules. So considerable were his losses that he had to return to the line to refit. Sutherland was filled up by a convoy under Lund which followed Capper, and both entered the place on 25th January. Crabbe was to provision Fraserburg, and at this moment was filling up with supplies at Beaufort West. The enemy under Malan was lying between Sutherland and Fraserburg, and denying the road to the latter place. Crabbe left Beaufort West, and on nearing Fraserburg on 3rd February he, for safety, left his convoy of 100 waggons behind him. His convoy was destroyed on 5th, while he suffered heavy loss and was saved from possible obliteration by the arrival of Capper and Lund from Sutherland. All the animals in his donkey convoy were lost, and he returned to the line to refit.

The operations just referred to were part of the counterstroke devised by Smuts. He had massed

some of his Commandos against the Clanwilliam group; these were under his personal command. Others under Malan he had placed between Sutherland and Fraserburg, while a force under Maritz had been sent 280 miles to the far north-west to attack Ookeip in Namaqualand. The latter does not concern us at present. It was now decided to "drive" the space containing the forces of Malan, and four Columns set out from the railway north of Beaufort West at various periods between the 17th and 23rd February, and drove for 100 miles towards the wire fence, Williston-Carnarvon-Victoria West. They cleared the area between Williston and Victoria West. The Commandos either breaking out north through the fence, or keeping within it, doubled east, attacked the block-housed railway and crossed the line, thus entering once more the midland area. The party under Malan accomplished this on 21st February, and was at once followed for several days by the Columns of Wormald. On 1st March, Wormald was relieved by B. Doran who, for a fortnight, continued the chase of Malan up and down the midlands, when he had to go to the line for rest and supplies. Malan also needed a rest and retired to the old haven of refuge in the Camdeboo Mountains. Here he met Fouché and Wessels, who were being chased by other Columns from the north-east, and the result of this meeting will be noted later.

During the remainder of the war the Columns north of the Cape Town railway were mainly engaged in keeping the block-housed area clear of Commandos. Capper, holding a central position at Williston, was frequently engaged during March and April pushing back L. Wessels and Theron. Prieska, to the north of the block-house line. This place, simmering with rebellion, harboured a large force of the enemy which constantly interfered with convoys from De Aar, so that in March W. Doran and Younghusband had to act together to clear the road. In the vicinity of Richmond Road Station, Berwick-Copley and Wormald were engaged keeping Commandos at a distance. In fact the Columns north of the Cape Town railway were mainly occupied in looking after the long wire fence, not inaptly compared to the Great Wall of China. \*

\* The "Times History," vol. v., p. 512, speaks very lightly of the value of this line. It says, "We may briefly remind the reader that the great length of this line, the remoteness of the country it traversed, and the fact that it only touched a railway at one end rendered it of little value, while its construction, necessitating several covering columns, and a large part of the already inadequate transport, caused much embarrassment to the active operations which it was meant eventually to assist. Not completely finished by May, 1902, it was never efficacious either as a barrier or as a line of supply."

*THE VETERINARY HISTORY OF THE  
VICTORIA WEST BLOCKHOUSE LINE.*

The construction of the blockhouse line gave rise to important veterinary conditions. Donkey transport is used in the Karoo, for as we have seen, no grazing exists for cattle, while the donkey lives on the bush. In order to press on with the construction of the line, the urgency of which may be gathered from the previous account of the military operations, ox transport was introduced, and from that moment trouble began. The cattle came by rail from the Eastern Provinces of Cape Colony, from a part not affected with cattle plague, and were railed to Victoria Road, which to them was practically a desert. Cattle plague was still rife around and north of Kimberley, and in the vicinity of Aliwal North, so that special provision was made at Victoria Road for dealing with an outbreak of disease.

One thing perfectly clear was that if the animals carried to Victoria Road were free from plague, it was certain they could not contract it at that place, or on the blockhouse line to Carnarvon, as no other cattle existed in the country. This essential fact seems to have been overlooked by the Veterinary Staff on the spot, though it was the key to the position; its nervous apprehension was the cause of untold trouble to the Senior Veterinary Officer of the Colony, 400 miles away, and of anxiety to the military authorities. As an example of administrative difficulty, an outline of the story will be related.

From Victoria West to Carnarvon is 70 miles, and by January this section of the line was completed. Carnarvon now became blockhouse-head for the construction of the section to Williston. This work began in February, there being 3000 oxen employed, and at blockhouse head a lay Inspector of Cattle was posted. The man had considerable experience of cattle plague. On 10th March he reported the existence of the disease at Carnarvon in a "mild form," and in his telegram undertook to "soon stamp out with serum." The man had blundered, but his report proved alarming to the military authorities, for come what might, the line had to be constructed. The scare created by this baseless story never really subsided, a feeling of insecurity was established, and this was subsequently intensified by the errors of the local Veterinary Staff.

The real cause of the mortality on the Carnarvon section was starvation. This was equally evident among the animals at the Victoria Road end. Early in March 7500 cattle were being employed, and with an increase in numbers there was an increase in mortality. On 15th March the deaths were declared by a Civil Veterinary Surgeon to be due to cattle plague, and once more there was an outbreak of official anxiety, cries for serum, orders and counter-orders by irresponsible Transport Officers, and others. It was with difficulty among all the tumult, and the interference by incompetent

and unauthorised people, that the Senior Veterinary Officer, the sole responsible man, could make his voice heard. He made the positive statement, based on an inspection of the cattle and post-mortem examination of fatal cases, that the disease did not exist, and that the deaths were due to "redwater" and starvation. By 25th March there were no less than 10,000 oxen employed on the line, and how they existed is a mystery, for of grazing there was practically none; the question of a daily ration had long been pressed on the military authorities, but it was not until the 7th April that one was sanctioned, consisting of 10lb. hay and 5lb. mealie meal per head. Day by day the cattle were getting weaker; at one time they could do the journey to Carnarvon in four days, they now required nine. A third rinderpest scare at this time did not help matters. The transport authorities ordered the inoculation of cattle which were dying daily from other causes, and so wasted some thousands of doses of the invaluable serum which had taken three months to prepare. This was a grievous loss at such a critical time, with rinderpest to the North and East. Still worse was the risk of contaminated bile, which was being sent in by the Transport Department from infected areas, and used without reference to the S.V.O. No better measures could have been devised, short of sending infected cattle, for introducing the disease into what was still a clean area. Considering the extraordinary military urgency of the situation, it is not perhaps to be wondered at that the authorities adopted this ignorant measure, for which the Veterinary Staff on the spot must be held responsible; nevertheless, it is by no means clear why the responsible military veterinary adviser in the Colony was not consulted before adopting a course so full of danger. He practically stood alone in his attitude towards the disease, and in opposition to the steps taken by the Transport Service; he showed that starvation, and not cattle plague, was killing the animals, and the Civil Veterinary Department of the Cape, whose interests in this matter were enormous, were able by independent inspection of the affected to support this view. When cattle plague began to be discredited, the local veterinary staff fell back upon anthrax as the cause of the mortality; it was little short of extraordinary that every cause but the real one of starvation was being searched for. It must be remembered, however, that with one exception, the veterinary staff at Victoria Road had no experience of rinderpest, and were naturally nervous and anxious at the heavy mortality occurring, which still continued, for the food sanctioned on the 7th April came too late to be of much use. Making every allowance for its want of experience, there was also evidence of a strong inclination to stick to a mistake.

It is interesting to place on record that the experimental evidence finally relied upon by the Victoria Road staff as proof of the existence of rinderpest, was based on the inoculation of a calf,

which, at 48 hours, showed a rise in temperature and diarrhoea. Without waiting for something more definite, cattle plague on this evidence was reported to exist, though the calf was well in a day or two, and so remained. *Sparrows* also had been inoculated, and as all died in less than forty-eight hours (from being shut up in a cage), there seemed to be no doubt in the mind of the experimenter of the correctness of his conclusions! It is remarkable that any mind could have harboured such absurdities, and regarded the above observations as proof of the existence of pestilence. Perhaps one ought not, under the circumstances, to wonder at the attitude of the military authorities. These facts are mentioned as evidence of the difficulties on service of always having the right men on the spot. It frequently happens that by accident the gravest responsibility falls on the weakest vessels, and that the reputation of a whole department may depend on their action or advice.

The debility farm of the Victoria Road depot was a few miles away, and contained 1400 cattle in all stages of decay and neglect. It was wet weather, and the worst cases after a cold night were unable to rise. They were quite free from any signs of rinderpest, but there was ample evidence for the necessity of some improvement in their management. The dead were receiving superficial burial by the dam which furnished the only source of water supply; the forage was unprotected, and among the bales the debilitated cattle crawled in for their last meal, and several lay there dying. The hay was soiled by their excreta, and for some distance around this mound of forage the ground consisted of mud and trampled-in hay, after the latter had been brought immense distances and at vast expense. The food, sanctioned too late to the working oxen, had of necessity to be thrown on the ground as there were no feeding places. Hay and meal alike were swallowed up in the mud, or blown away with the dust. Before the end of May the deaths in one week amounted to over 1200. The ox transport was destroyed; on 14th May steam had to take its place, and donkeys were now employed. By July the few cattle survivors were railed south; in a seven hours' journey 15 died in the train, and the balance was thereupon detained as "suspected." Once more the veterinary staff called in pronounced the disease to be rinderpest, but the war was over, and only the civil authorities were now anxious, and their veterinary staff fortunately had full knowledge of the previous facts of the case. The blunders over these cattle were extraordinary, and those committed by the veterinary service ought never to have occurred. We may conclude the story by saying that practically none of the animals survived. When the railway was found too rough for these poor starved remnants, an attempt was made to march the remainder away at their own pace, but they died on the road, and a mere handful reached their destination.

It seems hardly necessary to point out the lessons which the above teaches. The same blunders

in employing the wrong class of transport animal might occur to-morrow; the same folly of trying to get the animals to live without food; but never again, let us hope, will the same veterinary ineptitude be exhibited.

In the north-east of Cape Colony Fouché was still supreme. Follett had advanced from Dordrecht against him and P. Wessels at the end of December, but without result. Monro and Lovat, combined with Follett in January, and on 11th made another attempt: contact was established with Fouché, who, after inflicting many casualties on 17th Lancers escaped. Meanwhile L. Wessels went south-west, crossed the line, followed by Price with the Kaffrarian Rifles, and got into the stronghold of the Bamboos Berg. Fouché now being isolated, five columns "drove" for him but he disappeared. L. Wessels in the Bamboos Berg was hunted by Price, but managed to escape, recrossed the blockhouse line and rejoined Fouché. On 17th February the two were in the vicinity of Jamestown. From here both Commandants again entered the midlands, crossing the blockhouse line on 28th February, and Price and Monro's mounted troops under Baillie went in pursuit. The chase lasted nearly three weeks. Price, who knew the country, was rarely off Fouché's heels and attacked him whenever possible. Fouché's Commando broke up under pressure, one half led by himself went south and was followed by Price, the other, under Bezuidenhout, was followed by Baillie. Fouché, in his southerly run, reached Jansenville on 16th March, bounded west across the Graaf Reinet line, and then made north for the Camdeboo as hard as he could go with Price on his heels. He finally gained the security of the mountains south-west of Graaf Reinet after a chase of not less than 260 miles. In the Camdeboo he met Malan.

Baillie fared no better with Bezuidenhout, who, in his journey, described a circle of about 180 miles in circumference, which brought him back to the Bamboos Berg quite close to where he started. On 2nd April he crossed the line east and made for the Jamestown District followed by Moore and Lovat. Hunted here by Lovat, he was, by the end of April, owing to the loss of men and equipment, reduced to impotence, though never captured.

#### CAPE COLONY.

##### THE LAST CHASE OF THE WAR.

MARCH TO MAY, 1902.

By 26th March, B. Doran having refitted, combined with Price in a sweep of the Camdeboo Mountains in quest of Fouché and Malan. The enemy was driven from position to position, and finally by the end of the month ousted in small parties to the west into the Murraysburg district. Two sweeps of this district by four columns took place in April, including the Camdeboo Mountains, but without result.

Fouché and Malan represented a combination of extraordinary difficulty, such as might have been anticipated from the previous history of the chase after them. They were both specially marked for capture or destruction, and it will be of interest, as evidence of the work this class of operation imposed upon the horses, to know the measures which were taken in the last days of the war to endeavour to effect this.

It began by another series of sweeps over the Camdeboo Mountains. To and fro from Nelspoort to New Bethesda was this mountain range swept in May by Baillie and Doran, but still with negative results.

B. Doran was now joined by a fresh column under Bewicke-Copley, and other troops were brought in to assist, but before the reinforcements arrived Malan and Fouché left the Camdeboo Mountains and went south for Aberdeen, which they unsuccessfully attacked on 18th May. Now began a chase as remarkable for the endurance, courage and determination of the fugitives, as for the extraordinary efforts put forth to effect their capture.

Imagine an irregularly semi-circular course, 240 miles in length, over mountains and sandy plains, intersected by two lines of rail, and heavily block-housed near the winning post, the latter being the ground north of the Bamboos Berg.

Following the fugitive band are the columns of Lovat, Bewicke-Copley, B. Doran and W. Doran, sometimes in hot pursuit, at others cutting off corners to intercept, while bodies of mobile and local troops are stationed here and there, as the scene shifts, to intercept or prevent breaking back or breaking out from the enormously strong position which has been prepared to receive them. This latter is the objective, and to it they have to be driven. At first they go south, but gradually are moved in a large semi-circle until their heads are pointing in the required direction, north-east. On 20th Lovat reaches them, and has a fight which costs them 100 horses, but away go the Commandos with a column on each flank to contain them, another behind to keep them on the move, a fourth on the line of rail ready to steam to a distant point and intercept. The time for the latter arrives on the 27th, B. Doran being sent ahead by train. He reaches a point on the line of rail for which the fugitives are rapidly making. The crossing being denied them, the Commandos try to break back through Lovat; the latter closes, and in the encounter Malan is severely wounded and captured, while the remnant of the band streams away north in spite of the presence of B. Doran and an armoured train patrolling the track. The harrassed Commandos cross the line on 28th May, and speed through Bedford, cross the Winterberg Mountains, and approach Taarkastad, but are blocked by Lukin, while a break out to the east is provided against by troops on the East London line.

The end is approaching, for the Commandos are near to the Bamboos Berg through which it is intended to drive them on to the railway, now con-

sisting of an impenetrable wall of blockhouses. To prevent a possible break out to the west, the 2nd Dragoons are waiting at Maraisburg; should they get through this, another mobile body lies behind them, and exclusive of these a further blockhoused line lined for 100 miles by troops. The position for the fugitives is hopeless; the Bamboos Berg are now in sight and the end at hand, but with it came June 1st. The war was over.

The number of columns which took part in the operations in Cape Colony, January to May, was twenty, consisting of 11,000 horses. The casualties were very heavy, and hospitals were established at Clanwilliam, Sutherland, Piquetberg Road, Magersfontein, Carnarvon and Victoria Road, in addition to those previously existing, including the large debility establishment at Worcester, into which the cases were poured by tens of hundreds. As giving some notion of the amount of sickness, there were over 2000 sick animals at Worcester, of which 1500 were suffering from scabies and debility. We may say that at the lowest estimate the operations recorded above resulted in a loss of 2700 animals per month, of which 600 died or were destroyed.

#### THE NAMAQUALAND OPERATIONS.

JANUARY-MAY, 1902.

It will be remembered that the scheme of Smuts not only included an attack on the advanced bases being held in the wired-in districts to the north of the Cape Town line, but also a descent on the north-west territory of the Cape. This introduces us to the far away inhospitable regions of Namaqualand and Kenhart, to which a force under Maritz had been despatched. Ookiep, the capital of Namaqualand, was a place of importance owing to the copper mining industry, and was connected with the sea at Port Nolloth by means of a line of rail thirty miles long which ran through an absolute desert. Ookiep was of value to the enemy owing to the immense capital its mines represented. To reach it was a long journey for him, but all through a friendly country, for nowhere more than in these wild desolate sparsely populated northern regions was the hatred of everything British more firmly rooted.

This feeling had been shown early in the war, pp. 61 and 164. Though measures had then been taken to deal from the east with the territory as far as Upington, it was not possible until August, 1901, to form a mobile column for the purpose of maintaining order. This column was under Col. White, and what it accomplished in the way of marches in the desert area contained within the vast triangle, Ookiep-Upington-Van Rhyn's Dorp, has never been described. His opponents were all rebels more bent on thieving than fighting. In January, 1902, White was at Kenhart, where he had been engaged with the enemy. Hearing of the mission of Maritz, he hurried across to stand between him and Ookiep, but Maritz got behind him, and White, now at

Garies, unable to move to Ookiep, would have fallen into the hands of Maritz but for the services of a small regular and local force which had placed Garies in a state of defence. The subsequent attack on and defence of Ookiep does not concern us, but its relief was effected from Cape Town, troops being sent by sea to Port Nolloth and railed across the desert. The town was invested by the enemy on 31st March, 1902, by which time Smuts had arrived. It was relieved by Colonel Cooper on 4th May, the mounted troops with him being under Callwell.\*

White at Garies was relieved by Kavanagh's column from Calvinia; Wyndham's column was established at Van Rhyn's Dorp, while Smuts proceeded to Vereeniging to discuss terms of peace.

#### EASTERN TRANSVAAL.

##### BOSCHMAN'S KOP.

OPERATIONS: APRIL, 1902.

The area to the east of Pretoria, described at p.168 as protected, was the scene of military operations during April. The term "protected" had become a misnomer, for since the previous January it had been the home of a Commando under P. Viljoen (see p.183), and in February, during one of the Free State drives, General Alberts from the Free State with 500 men had joined him. All endeavours to oust these Commandos from the protected area had been uniformly unsuccessful. In December, 1901, Gilbert Hamilton with a Cavalry Brigade suffered reverses, and again in February it was roughly handled. Since then these Commandos had moved about the protected area enjoying complete immunity. Though in strength about 1200, this district for many weeks was able to provide subsistence for this number of horses and men, yet a single British squadron would, under like conditions, have starved in a week. As the "Times History" says, how these people lived was a mystery. "The country was a wilderness; not a beast, not a field of standing corn, not a native was left. Some trampled mealie fields offering a niggardly harvest to very careful gleaners were the only signs of sustenance."† There must have been hidden supplies of food available for both horse and man.

On 2nd April another attempt was made to deal with these Commandos. Lawley, who had taken the place of G. Hamilton, brought with him from the Free State the 7th Hussars and 2nd Dragoon Guards. On 31st March he was at *Boschmans Kop*, 18 miles south-east of Springs. The following morning before daylight he sent out the 2nd Dragoon Guards, 300 horses strong, to surprise a piquet of the enemy, 12 miles east. It was a dark wet morning; the regiment walked into the arms

of a Commando 800 strong, which was as much surprised as they. The Commando soon rallied, and adopting their modern tactics charged boldly up to the squadrons at point blank range, also endeavouring to cut them off from their base. The last seven miles to camp was across a level plain where no defensive position could be found, so it resolved itself into a neck and neck race. As they neared their camp the Artillery opened fire, the 7th Hussars came out and the enemy then withdrew. The losses were over 80 horses and men, and at one time the whole regiment was in peril.

It was evident that in spite of the harrowing to which this State had been subjected, the spirit of resistance was still there, and another drive across the Eastern Transvaal was inaugurated by Bruce Hamilton, whose seven Columns, totalling 7000 mounted men, were drawn up in a line from Great Oliphants Station to Carolina, points 60 miles apart. From here on 12th April they "drove" south to the Standerton line which was reached on 14th, the distance apart of the two lines is 80 miles, so that 40-mile marches were made. The enemy met these columns by "charging" tactics, so that men literally smashed a way through the solid rank, with very little loss excepting in prisoners.\*

When B. Hamilton arrived at the Standerton line he was joined by four columns which had just left Elliot's big drive in the Orange Free State, p.214. With eight columns he swept back on 17th April to the Delagoa line, thereby going from south to north, taking a course just west of his previous drive. But the fruits of this enormously expensive operation were three prisoners; the Commandos of P. Viljoen and Alberts escaped, the enemy having broken away to one flank and got clear. On the 23rd April a third of these cross sweeps was made, a little further west so as to touch Heidelberg on the Natal line, but only four prisoners resulted from this operation.

It is impossible for the civilian to realise what each "drive" meant to animals and men. "Each day, in rain or wind, or under tropical sun, they marched from dawn to dusk, each night they dug entrenchments, and strung up leagues of barbed wire entanglements before they lay down in the open, to the brief rest which many, from the necessity of finding innumerable outposts, never obtained at all."† If it was fatiguing to the men who rode, what must it have been to the horses who carried them? In all the above drives the piece of country to be swept was roughly 80 miles in length by thirty to fifty in width; so that it resolved itself into marches of forty miles a day for two days, then two or three days rest, followed by two more long marches.

At this time in the Eastern Transvaal there were 19 columns operating, of an aggregate strength of

\* The Veterinary Officer with Colonel Callwell was C. V. S. (now Captain) Greenfield.

† Vol. v., p. 562.

\* "Official History," vol. iv., p. 520.

† "Official History," vol. iv., p. 521.

14,000 horses, and the wastage may be taken as follows:—There were nearly 3000 sick horses a month for the veterinary hospitals in that part of the colony, or to be drafted away to debility farms, and 700 horses a month either died or had to be destroyed.

#### ORANGE FREE STATE.

OPERATIONS: MAY, 1902.

##### THE LAST DRIVE.

When B. Hamilton had completed the work in the Eastern Transvaal just related, he crossed the Vaal into the Orange Free State, and in co-operation with Elliot a big sweep was organised. Before reaching the Vaal he drove from Greylingstad on 2nd May, on a line extending to Vereeniging, and continued it up to the northern blockhouse line of the north-east Free State, *i.e.*, Heilbron-Frankfort, which was reached on the 4th. The Eastern outlet lying between Villiersdorp and Frankfort, a space of 20 miles, was closed by Allenby. The results of the drive were that many of the fugitives broke through the blockhouse line, and some through Allenby's; but 90 were captured. In the next phase of this operation Elliot lined up from Lindley to Liebensberg's Vlei, and Barker filled in the space between Frankfort and Elliot's right. From the northern line of blockhouses B. Hamilton drove south on 5th May, his line of eight columns extending 60 miles in length, and consisting of 11,800 horses. The distance from his objective—the Kroonstad-Lindley blockhouse line—was 40 miles, and this was covered in two days. On 6th the enemy boldly charged Elliot's line, and burst through with the loss of only one man and twenty-five horses. A little later another party failed to get through and was captured, so that 300 prisoners were secured by the time the blockhouse line was reached.

The following day, 7th May, B. Hamilton turned about and drove north over the same ground. The driving line was here in parts prolonged to 80 miles, from the railway to the Wilge River. It may be visualised by thinking of the distance from London to Rugby. Two parties of the enemy broke back, and on the evening of the 9th the drive ended. With it terminated the last operations in the Free State, for on 10th, pending peace negotiations, all further offensive action was stayed.

It cannot fail to strike those who have had the patience to follow the two years of weary operations in the north-east Free State, the losses a small and determined enemy is capable of inflicting, provided they possess superior mobility. It would be interesting to know what our losses in animals were during that time! Fire, sword and pestilence are active and efficient methods of destruction, but for the general obliteration of animals, physical unfitness will compete with them.

#### WESTERN TRANSVAAL.

OPERATIONS: MARCH-MAY, 1902.

The serious turn taken by the events in the Western Transvaal recorded at p.213 led to a great concentration of troops at Klerksdorp, which now formed the base of all future operations. Grenfell, who was close to Lichtenburg, was recalled to Klerksdorp, and his column, together with that of Von Donop, was placed under Kekewich; it numbered 2800 horses. Rawlinson, who had followed De Wet and Steyn, p.211, was brought in from the Free State with his entire force of 2000 horses. W. Kitchener was given command of three columns brought in from the Eastern Transvaal, amounting to 3000 horses. Rochfort, with seven columns on the Vaal in the Bloemhof district, brought in 2500 horses. In this way 16,000 horses were concentrated and made up into four divisions, each 4000 strong. The sudden increase in the number of mounted troops in the Western Transvaal must be carefully noted. This area of the war had never been remarkable for either the number or size of its columns, and the veterinary requirements were met by outlying hospitals at Klerksdorp and Krugersdorp, which emptied their contents into the hospitals at Potchefstroom and Johannesburg. Suddenly Klerksdorp, with its small hospital, had become in a night the most important centre in the campaign, and would evidently be severely tried with so large a force based on that place.

The position of the enemy was unknown with exactitude, though large numbers were believed to be west of Klerksdorp. De la Rey had met De Wet about 25 miles west of Klerksdorp, and though the latter had returned after the interview to the Free State, Steyn remained behind, and was still with De la Rey in the position indicated. Kemp was 12 miles to De la Rey's west, and Liebenberg was once more back in the vicinity of Wolmaranstad, which had now been evacuated. A movement to the west was hopeful, and Lord Kitchener, who was personally present at Klerksdorp on 19th, gave orders for it to occur on the evening of 23rd March. The operations were remarkable for their simplicity, audacity, and severity on animals. Some 11,000 mounted men were to ride out for 40 miles west on a narrow front in three columns, and so get between the various Commandos. To enable this to be carried out, it had to take place in the dark, and to be done quickly. No less than 40 miles had to be covered in one night. The columns were then to open out, form one long line and drive back to the Schoon Spruit blockhouse line, which ran north from Klerksdorp. All these columns did not start from Klerksdorp. Kekewich moved off from Vaal Bank on the blockhouse line running from Lichtenburg to Schoon Spruit; Kitchener and Rawlinson from Klerksdorp, Rochfort from Commando Drift on the Vaal south of Wolmaranstad.



On the night of the 23rd, without guns or transport, the Columns passed out silently to the west, Rochfort to the north. The distance within the given time could only be accomplished by trotting. At dawn they turned about and opened out, forming a line 90 miles in length, or the distance between Birmingham and Cambridge. But there were gaps in this line; two Columns failed to get into touch, and Steyn, De la Rey and Kemp availed themselves of the opportunity and passed through. Liebenberg had more difficulty; in consequence he had to abandon the captured guns and waggons, but by going south escaped. Rain came down in torrents; the Columns, worn out by fatigue, reached their base 40 miles east by the evening of 24th March. The results were small, 1671 head of stock and 173 prisoners, and in consequence of the severity of the work the veterinary hospital was filled to overflowing.

#### ACTION AT BOSCHBULT.

The next movement decided upon by Lord Kitchener from Klerksdorp was to take place on 26th March. It was to differ in character from the last. Kekewich was to establish a fortified base at Middelbult, 23 miles south of Lichtenburg. W. Kitchener was to move to Driekuul south of Middelbult, and form an entrenched camp. Rawlinson was to march to Rhenoster Spruit, 16 miles west of Klerksdorp, while Rochfort remained on the Vaal. The troops were to operate from the position assigned to them, so transport and guns were taken. Kekewich was in position on 29th, and Kitchener on 30th March. At 2 a.m. on 31st Kitchener sent a Column of 1800 mounted men and guns under Cookson on a reconnaissance to the west of his position along the Brak Spruit. The horses carried two days supplies for man and horse, and mule transport carried a third day's supply. The force moved rapidly, and, without knowing it, in the exact direction of De la Rey's camp. At 10 a.m. a body of the enemy was sighted, and chased by nearly all the troops Cookson had, excepting those with the transport. At a hand gallop the enemy was followed for some miles, when suddenly a check occurred; they had been joined by re-inforcements, and now faced round on their pursuers. It was evident to Cookson that he must fight where he was; he had marched 35 miles since early morning, and any attempt at retirement would have meant annihilation. An eight-mile gallop brought him up some more men from the rear, and later on his transport arrived. Meanwhile he kept the enemy off while he entrenched himself. Generals like De la Rey do not usually give time for an enemy to improvise defences, but the fact was he had to call up Commandos, and it was not until 1.30 that he was in a position to make any serious attack. Meanwhile the laager, not yet completed for defence, had been formed in a farm on the edge of the Spruit, and the mules placed in the dry bed under cover. The attack at *Boschbult* was opened by Artillery fire, the explosion of the shells in the laager stamped

some of the still inspanned mules, which broke away and created confusion in a Company of Mounted Infantry. Advantage was taken of this by the enemy to charge the laager, a line four miles long advancing for this purpose, but they were received by so severe a fire that they moved away. By the early afternoon the defences of the laager were sufficiently advanced to allow of a screen hitherto in the open to return to cover. Its retirement was the signal for a fresh attack.

Fighting continued until the evening when the enemy retired. It was De la Rey's last fight. All night long Cookson was strengthening his defences, for which purpose the bodies of his slain animals were largely used. The casualties were heavy, 364 horses and mules had been killed in the laager, and 100 men killed and wounded. Next day Cookson could not have moved had he so desired owing to the destruction of his transport animals; by mid-day W. Kitchener arrived, and both Columns returned to Driekuul on 2nd April.

The remaining operations in the Western Transvaal were conducted by General Sir Ian Hamilton, who arrived at Middelbult on 8th April.

#### IAN HAMILTON'S OPERATIONS.

APRIL AND MAY, 1902.

##### ROOIWAL.

Hamilton feeling certain his enemy was to the south in the vicinity of the Brak Spruit moved in three columns on 10th April. Kekewich being on the right, Rawlinson in the centre, and W. Kitchener on the left. By night the right was at *Rooiwal*, almost on the ground where Cookson met De la Rey at Boschbult, and not far from the scene of Methuen's disaster. On the morning of the 11th a strong force was seen bearing down on Kekewich, which, from its regularity, was believed to be one of the other columns, nor was it until the enemy was quite close and already among the advance screen that all doubts were at rest. Von Donop and Grenfell, the two lieutenants of Kekewich, rapidly formed an irregular line; they had but a few seconds in which to do it. The enemy was advancing towards them at a slow canter in line two and three deep, firing from the saddle and shouting. They were met by a rattle of musketry and case from the guns, but it had no effect. Riding at their head was Commandant Potgieter; nearer and nearer approached the intrepid horsemen, facing a stream of fire which, though it thinned their ranks, did not diminish the astounding courage which animated the best soldiers of the Federal armies. These men had been trained under a master in the art of war; he, De la Rey, was absent discussing terms of peace, and Kemp was in command. Without increasing or diminishing the pace, the enemy advanced nearer and nearer, until but 100 yards separated them from the line of magazine fire; then they turned, though not their leader; Potgieter was killed 70 yards from the line. The mass retired

at a faster pace than it advanced, and one of the most wonderful sights witnessed in the war was over in a few minutes.

In describing it, the "Official History" \* says:—

"The howling rush of the Dervish or Ghazi, the sonorous charge of European Cavalry, the chanting onset of the Zulu impi, were less impressive than the slow oncoming of this brigade of mounted riflemen." \*

There was no Cavalry on the field to pursue: Grenfell had 150 horses killed, exclusive of those in the advance screen, and many had stampeded. It was an hour before any steps could be taken to follow up the demoralized enemy, and by that time Hamilton had arrived. Pushing on with 2000 mounted men in a southerly direction he soon came in contact with Kemp, who had not expected pursuit, and for three hours this was kept up until 18 miles had been covered, and the horses could go no further. The force then returned to Rooiwal after being in action 14 hours. The losses among the horses during the attack amounted to 300 killed; these casualties occurred wholly in the columns of Kekewich.

There is a lesson in this which applies to all hastily constructed machines in war. According to the recognised rules of war, the enemy under the effect of magazine fire should have been swept away. As a matter of fact their losses were relatively small. Our men could not shoot straight. The "Times History," vol. v., p. 529, in speaking of the composition of Hamilton's force, says:—"There were hundreds of townsmen among the Yeomanry who had barely been able to sit a horse or sight a rifle when they first came to South Africa. No Mounted Corps on the field had had a separate existence before the war broke out, and only one, the Imperial Light Horse, was as old even as the outbreak of war."

The principle which applies to this fine body of imperfectly trained men, equally applies to all branches, be they combatant or non-combatant, when the country has to depend upon the willing but untrained services of the general public. So far as the veterinary service is concerned, we have in these pages made this abundantly clear, but it is well to see its effects in the combatant ranks, in order to relieve our criticism of the risk of being considered ungracious.

The final operation in the Western Transvaal remains to be told. The "drive" was still the only military weapon of any value, and we have watched its effects upon the horses during the process of its evolution. The two latest applications of this measure were represented by a long line advancing many miles daily and closing up gaps at night, or by columns shooting out rapidly for 40 miles into the veldt on a narrow front, turning about, deploying into one long continuous line and driving home for 40 miles at their best pace. There is, of course, no question which of these is the most costly in

horses; experience showed that there was practically no difference in the tactical results obtained.

Hamilton adopted a sound measure from a horse point of view in the last drive of the war. He had been strengthened by the addition of two divisions, that of Thorneycroft with his two columns of Australians and New Zealanders, and Rochfort's column which had been operating on the Vaal. His force was now brought up to 17,000 horses, the largest mounted body ever placed in the hands of a British General. He was in the middle of the southern half of the Western Transvaal, and from this point he intended to drive towards the west on to the blockhoused Vryburg-Mafeking line. His troops were arranged in one long line extending for 30 miles, in a position which may be roughly indicated by saying that it occupied the whole middle third of the space between Lichtenburg and Wolmaranstad. This bush-whacking of a continent required a great deal of thinking out, as both ends of the line were in the air and therefore vulnerable. This was guarded against on the south by Rochfort coming up from the Vaal and joining the advancing line the day before the blow was to fall. When he came into position the line was 50 miles in length, equivalent to a line of horsemen extending from London to Basingstoke. The driving distance from where Hamilton started to the Vryburg railway was 80 miles. Five days were to be occupied, so that the average day's march was 16 miles, which left the animals fit at the end of it, in spite of the inhospitable nature of the country generally, and its waterless character.

The account of these operations given by the "Times History," vol. v., cannot be omitted. In referring to the net now approaching the Vryburg blockhouse line it says:—

"Behind the 300 in the cordon were 17,000 troops entrenched. Thorneycroft dug redoubts at every 100 yards for six miles, and filled in the interval with waggons and barbed wire. Kitchener's redoubts were 50 yards apart. In front of the 300 were six armoured trains and 45 miles of blockhouses manned by 4000 rifles. It was the night of the 10th May, the day before the armistice."

The drive concluded on 11th May, and resulted in the capture of 367 prisoners. On 17th, the columns returned to their several bases and awaited the result of the peace negotiations.

The war was over.

In the 29 columns existing at this time in the Western Transvaal there were 20,700 horses; the work done by 17,000 of these we have just related. We must now look at the question of the veterinary arrangements made at Klerksdorp for the care of not less than 3000 sick, resulting from the last month's operations.

\* Vol. iv., p. 501.

# VETERINARY HOSPITALS DURING 1902.

The pressure exercised on the veterinary hospitals during 1902 was greater than ever, owing to the existence of specific lymphangitis in addition to the other epizootics. The general sick rate had been reduced in consequence of a change in the character of the work, and the greater care and attention paid to animals resulting from Colonel Long's inspection of columns. For example, just prior to his appointment there were 27,900 sick for the week ending 24th October. Four months later the total sick amounted to 17,700. It is true it again rose on the 14th May, and stood at 24,700 sick, but there had been a great increase in the number of horses employed.

The work of the hospitals generally had improved, the great difficulty was to obtain sufficient native labour, and this became so acute in connection with the Klerksdorp Hospital during the period of the Western Transvaal Campaign that men had to be sent from other hospitals in order to try to cope with the pressure, and finally white refugees had to be employed.\* Most of the hospitals were working smoothly. The exception was in the Eastern and Western Transvaal where the congestion was intense. Nevertheless, the general efficiency was satisfactory, as an example of which the returns for the week ending the 14th May may be quoted. During that week 6000 horses were discharged from hospital to duty, an average of 120 weekly from each of the fifty hospitals. The discharge of this large number afforded no relief to the work, for 7000 others were admitted to treatment.

The chief interest in hospital work during the last month of the war centres around the small branch hospital at Klerksdorp, which had suddenly to expand to meet military requirements. It could not expand fast enough owing to the deficiency of labour and the poverty of the water supply. No water was laid on, and the shelters for the sick were few. The hospital also worked under other difficulties; from one cause or another those in charge of it were frequently changed. There was a change on 27th November, 1901, another on 24th January, 1902, 8th February, and again on 18th March. It must be remembered in this connection that at this time two officers were controlling the energies of the Veterinary Department, Colonels Matthews and Long. The former was endeavouring to meet the urgent demands made on him by Column Commanders for veterinary aid, the latter was opposed to the supply, and wished the veterinary staff to be withdrawn from columns and placed on the line. Extra Field Hospitals had been ordered by the Authorities which had to be staffed and to which Colonel Long objected, not knowing at the time that it was the Commander-in-Chief's order;

\* The experiment of employing 150 convalescent soldiers at Pretoria for hospital duties, in order to liberate natives for the Klerksdorp Hospital, was a hopeless failure. Not only were the men unfit for hard work for reasons of health, but they could not handle mobs of horses.

equally, and for the same reason, he took exception to veterinary officers being sent to columns. A dual control necessarily always creates an impossible position; nevertheless, the frequent changes in connection with the Klerksdorp Hospital ought, in principle, to have been avoided, for such changes are fatal to effective working. The P.V.O. was anxious to have a senior officer of the A.V.D. in charge, and this he was unable to effect until 18th March.

The officer selected had only been a few days in Africa, knew nothing of local conditions and difficulties, and had barely taken over when his assistant officer was found unfit for service and sent on sick leave. The sick in hospital on 18th March amounted to 550, and was daily rising. Stabling, water supply and labour had been promised, but were not forthcoming sufficiently fast to meet the urgency of the situation. The P.V.O. had personally been present at Klerksdorp to push matters along, and he was followed a little later by Colonel Long. But even the latter—who, of course, owing to his official position was responsible—could make no headway; buildings, water, and mangers take time to construct; nose-bags and line gear could not be obtained in sufficient quantities to meet the daily increase in the numbers, and to obtain labour locally was impossible. On 25th March there were 1000 sick with personnel for half the number. Already a hospital for 1700 sick had been projected, but until it could take shape† it was evident that the sick must be sent away from the place, a scheme which the Authorities objected to owing to the congestion of all the other hospitals in the district. Potchefstroom, for instance, already had 1400 sick of its own, Johannesburg 2300 sick, Krugersdorp was full to overflowing, and to further increase the personnel difficulties a fifth hospital was ordered to be formed at Springs, near Johannesburg, for 500 animals. In the first days of April the P.V.O. was again at Klerksdorp. An Australian and New Zealand contingent had arrived, 2500 strong, and 90% of their horses had been affected with influenza, and 25% were still suffering. It was impossible to find accommodation for these, as the number in hospital at Klerksdorp on 9th April stood at 1200, so they had to form a depot for their sick in which 300 animals were placed.

We have seen from the dates of operations the number of times columns returned to Klerksdorp for re-fitting, and always adding to the sick. On one day in March, 360 horses out of a total of 700 with Kekewich had to be sent to hospital as being unfit for work, and such examples were numerous.† The pressure of work on the black labour employed in the Hospital rose to breaking point, it was impossible to get the horses properly watered or

\* Stabling for 500 sick was not approved until 20th April.

† In his evidence before the Royal Commission, Major-General Kekewich stated, Q. 22,024, that during the last month of the war he used up 1500 horses. His strength at the time was 4000, so that his loss was 37·5% a month, or 450% a year.

fed, and the extra labour sent from time to time never met the urgency, as the sick list rose by leaps and bounds. On 20th April it stood at 2200, and a day or two later approval was given to reduce the strain by sending 500 of the sick to other hospitals. It was not, indeed, until the urgency had passed away that proper accommodation for the sick, water supply, and labour were obtainable at Klerksdorp. In the meantime another hospital break-down had been placed to the credit of the Veterinary Service.

It was not as if the grinding machinery had stopped working elsewhere, which would have enabled further aid being sent to Klerksdorp. The account given of the operations will show how far that was from being the case. In fact, the congestion of the hospitals on the line from Johannesburg to Natal in the Eastern Transvaal, was as bad as it was in the Western Transvaal. The hospital at Standerton had been receiving the sick from Bruce Hamilton's operations, and on 29th April there were 2300 cases in hospital, more coming in, and labour urgently required. One hospital further down the line had to be closed owing to the failure of water supply, and its sick distributed to places already congested.

Returning to Klerksdorp, from the 24th April the work had to be carried on single handed owing to the sickness of the second officer, and we may briefly look at the duties which had to be performed by the one who was left. In hospital he had over 2000 sick. Every column based on Klerksdorp had a debility depot of its own, of cases requiring rest. These depots had to be visited daily, and the cases of glanders and mange they contained weeded out. There was a large transport depot with sick animals, a depot for captured stock, the cattle in which were suffering from pleuro-pneumonia, "red water" and rinderpest. Both of these had to be visited and assisted. Finally the hospital had to take on the duties of the supply of veterinary stores to units in the Field, a laborious and time-consuming service. Under the above circumstances there appears to us to be good excuse for the failure of Klerksdorp as constituted to meet the requirements of sudden and intense military activity. Yet we shall ever deplore the dual control in administration, and regret that the undivided attention of a senior administrative officer with long experience of the war was not devoted to this one centre of extraordinary activity, with three or four officers placed in the hospital for executive duties. These steps could not have affected the water supply, nor the shortage of nose-bags, the absence of mangers and stabling, and the poverty of black labour; they would not have prevented the hospital being crushed under the pressure exercised upon it, but they would have prevented any reproach on departmental arrangements.

On the day peace was proclaimed there were 28,700 sick horses and mules in South Africa, of these 19,500 were in the fifty existing hospitals, the

balance being on debility farms under Remount management.

On the same day the Veterinary Service with Units, Remounts and Hospitals consisted of:—

Veterinary Officers	63
Civil Veterinary Surgeons	113
European Dressers	79
Indian	528
Civil Farriers, Conductors and Clerks	217
South African Natives	3547

We are fortunate in having recently had placed before us the cost of the upkeep of a hospital in South Africa.\* One for 1500 animals at Middelburg cost £245 a day, of which £187 was for rations for the horses. As the animals would have to be fed, whether in or out of hospital, it is thought the charge for rations should not be placed against the cost of maintaining a hospital, in which case the expenditure would be reduced to £58 a day for 1500 sick. The astonishing fact comes out in Major Cochrane's paper that the cost of drugs and dressings only amounts to one-fifth of a penny per day per horse, or 4s. 2d. daily for 1500 animals. These figures are the outcome of direct observation and painstaking inquiry; it will be impossible in future to argue that it is cheaper in war to allow horses to die than to institute a place for their medical and surgical treatment; even if the other condition (acclimatisation) urged at pp.134-135 was not permitted to carry weight.

The declaration of peace brought no reduction in the numbers in hospital, on the other hand they increased, for animals which could not previously be laid up for treatment had now to be admitted. The number of hospitals were now gradually reduced, for a large hospital run on good lines gives far better results than several smaller hospitals of unequal value. Nevertheless it was ten months after the war before the hospitals fell to nine, the number then fixed as the future establishment for the country.

#### *THE REMOUNT DEPARTMENT IN 1902.*

By 1902 a system had been in operation which could not now be changed, we allude to that of placing animals in the ranks as soon as they were landed. It is true an effort was made to avoid this, but under military pressure all regulations in this respect had to be swept aside for the time being. It was these spasmodic outbursts of activity which proved so wasteful of horses.

An Inspector-General of Remounts for South Africa, whose appointment was notified in Cable No. 101, see p.189, arrived in South Africa on 31st Dec., 1901, and took over the duties by inspecting

\* "Veterinary Hospitals during War," Major R. C. Cochrane, A.V.C.—*United Service Magazine*, Nov., 1913. This paper ought to be read by all interested in the question of hospitals, including economists.

the various Remount Depots in the Command. At this time, therefore, there existed an Inspector-General of Remounts with a Staff Officer, together with a Veterinary officer, Captain Carr, A.V.D., who acted as ungazetted A.D.C. to the General. In addition, there was an Inspector of Remounts and Hospitals, and an Assistant-Inspector of Remounts. The result of the inspection by the Inspector-General of Remounts of the various Remount Depots in the Cape was, on the whole, satisfactory.\* The depot at Durban he condemned, as in wet weather the horses stood up to their hocks in mud. The climate also was bad for horses, and the animals lost condition. A rest camp had accordingly been formed six miles from Durban, and from here the horses were forwarded to a large farm twelve miles north, where accommodation for 2000 was in course of time erected. The Inspector-General considered the Natal Remount work was "much worse organised than the others," but, with a change in administration, improvement was hoped for. He observed that mangers did not exist in all the depots, but had been ordered, and that water was not always laid on.

The remount depots were divided by him into three groups: landing depots at Cape Town (Stellenbosch), Port Elizabeth, East London, and Durban; issuing depots at De Aar, Bowker's Park (Queens-town), Bloemfontein, Johannesburg, Standerton and Newcastle. Resuscitating depots (debility farms), at Worcester, Naauwpoort, Craddock, Stormberg, Aliwal North, Burghersdorp, and Dordrecht in Cape Colony, Lynch's Farm at Bloemfontein, Heilbron, Winburg, and Springfontein in the Free State. In this report the condition of the defective depot at Mooi River is not specifically referred to.

The Inspector-General drew attention to the fact that the Remount Officers employed in the various depots all over South Africa had no previous experience of remount work, but were doing their best.

Regarding the length of time given to horses after landing in order to fit them for work, a point into which he was specially charged by the War Office to enquire, he says: "Lord Kitchener told me he had given orders that no horse was to be issued for use with columns on service until it had been a month in South Africa. Very few of the officers I found knew of this order, and horses were continually sent to depots up country with no description of them or date of their arrival in the country. I gave stringent orders to remedy this, and called in all horses I found already issued that had been too short a time in South Africa."

The Inspector-General of Remounts did not remain long in South Africa; by the end of March, 1902, he was in Australia, and the only matter of professional interest connected with his report from that country, is a note on the needlessly large veterinary staff maintained there. His remarks on

this matter must be reproduced, as they have a bearing on a very important question. "Civil Veterinary Surgeon Conacher was sent from Pretoria to see whether blue (*sic*) glanders existed in Australia. Now, as there were in the country two very competent men, Veterinary-Captain Nuthall, A.V.D., and C.V.S. Taylor, the sending of Mr. Conacher appears to have been but a useless expense, especially as I know that competent veterinary surgeons were terribly wanted at the time in South Africa."

As to the nature of "blue" glanders we know nothing, and never heard of it until it appeared in this report. It is most unlikely that Colonel Matthews would send anyone to Australia to look for a disease which did not exist, and the question arises as to who sent this gentleman looking for glanders in a country where it has never been seen? Mr. Conacher was attached to the Remount Department, and his visit to Australia, so rightly condemned by the Inspector-General of Remounts, may have been connected with the evidence given by Col. Darby before the C. of E. Remounts dealt with at p. 203.

Returning to a general account of the remount operations during 1902, there was probably no period in the war, since Bloemfontein in 1900, when the pressure had been so great as from March to May, 1902. An increase in the number of horses sent to the country was met by an increase in the size of the depots. We have already seen that this occurred in Natal, but, in addition, the Port Elizabeth depot in January was nearly doubled in size.

One of the very busy remount centres during 1902 was the improvised depot located at Klerk dorp. Prior to the Western Transvaal Campaign it was merely a place where columns threw in their sick and worn, and received fresh animals in their place; but the operations undertaken in March, April and May necessitated a rapid and considerable expansion, such as had never been anticipated. The depot, in fact, suffered from acute congestion, for the same reason as we have seen the hospital did. Standerton was another extremely busy centre, the Natal Railway being actively occupied during 1902 in pouring up remounts to Johannesburg. With a change in the local administration at Mooi River, a marked improvement occurred in a large and important depot which had become a reproach, see p. 201.

The inspection of Remount Depots by Colonel Long and the Inspector-General of Remounts had led to considerable structural improvements, while their veterinary supervision throughout South Africa having been in the hands of Major Blenkinsop, D.S.O., for several months, insured an organisation and thoroughness of veterinary work which had previously been absent.

The debility farms and remount depots had been largely freed from the diseases which had previously

\* Reports by Officers appointed by the Commander-in-Chief to inquire into the working of the Remount Department Abroad. "Parliamentary Paper," Cd. 995, 1902.

carried off thousands.\* The balance of the "protection stock" had received veterinary supervision, and matters as a whole during 1902 were better than they had ever previously been.

Nevertheless, unfit horses were still employed in making war, and if any failure of the Remount Service can be urged at this late period of the campaign, it is that of not grappling closely with the question of conditioning horses even during the short time the animals remained in the depots. It is true that practically every depot possessed an Eassie exercising track (see p. 129), but more than this is required for riding horses; these, in order to be conditioned, must carry a saddle and man, see p. 189.

The remount view appears to have been that it was not part of their duty to ride and train the horses, but it seems to us that it was much more their duty than that of looking after thousands of sick animals on debility farms. We fully recognise the extraordinary difficulty and expense attached to conditioning 10,000 horses a month, but the heavy financial burden thus incurred would have been cheaper than horses, and no one can doubt the saving and efficiency which would have resulted. Before the war, the question of conditioning remounts for the Field had never been thought of, possibly for the reason that the handful of horses which the War office laid down in War Establishments, as meeting the requirements of a Force, did not appear to suggest any difficulties in the way of exercise.

The conditioning of remounts in the Field for both saddle and draught work is a matter which requires the closest attention, if we are to avoid in the future the errors of the past. We do not believe that it can be satisfactorily arranged for excepting by charging the remount branch with this duty, for it is impossible to conceive two distinct departments connected with the receipt and issue of horses in war, and another charged with getting them into condition before they are given to the troops to use. The work must be centralized, and proper training establishments provided.

There are no returns after January, 1902, to show exactly the number of horses which came into the country month by month up to the proclamation of peace. In a Cable from the War Office of 26th November, 1901 (see p. 189), the numbers then being sent, in response to an increase asked for on the previous day, are put down at 10,000 to 12,000 remounts a month, and on the 24th December a Cable was received to the effect that 40,000 horses would be landed in December, January and Febru-

\* See p. 204 for the destructions in Cape Colony between September and December, 1901, inclusive. From January to May, 1902, the numbers were as follows:—

Glanders	1380
Mange	120
Debility, injuries, etc.	390

During this period 1870 died in addition to the above.

ary. The total supplied from January to June, 1902, was probably as follows:—

	Horses	Mules
Oversea remounts, less loss at sea	84,688	10,447
At sea in Dec., 1901, less loss	9367	985
Remounts obtained in S. Africa	11,898	10,520
	106,223	21,952

The loss of horses and mules during the period January to May, 1902, is estimated by us, on the basis explained at p. 141, as being in round numbers as follows:—

Horses	73,400
Mules	7800

It is again necessary to note that these losses only refer to the animals paid for, and do not include the thousands picked up\* and utilised, which were obviously fewer in 1902 than during the preceding years.

#### TOTAL LOSSES FOR THE WAR.

We may now present the total losses during the entire period of the war, and the loss we refer to is the dead loss, *i.e.*, the total number of animals which actually disappeared out of the total paid for, and exclusive of those "picked up" in South Africa.

	Dead loss	Horses	Mules
1899-1900		110,028	29,113
1901		142,603	14,433
1902		73,442	7853
<b>Totals</b>		<b>326,073</b>	<b>51,399</b>

These losses are 66.8872% for horses, and 35.3751% for mules year by year throughout the war; the numbers for each period must not be regarded as anything but approximate, for we have previously explained how they have been arrived at, but the accuracy of the totals may be accepted as they are official. See Appendix 38, p. 258, "Appendices to the Minutes of Evidence" R.C.

The circumstances attending this holocaust have formed the bulk of this history.

A great deal of scattered information regarding the loss of animals in the Field has already been recorded in these pages. A knowledge of such loss is of the utmost moment. It indicates the provision to be made for the future, and it enables a Commander to calculate beforehand what his requirements in re-inforcements are likely to be. We can only regret that the information respecting losses has not been complete or continuous, so that the cost in animals of every operation, large and small, might have been known. Even under pressure of active service brief note-making is

\* One small M.I. Column, 500 strong, alone collected 13,500 animals off the veldt in the Free State in fourteen months, and handed in 10,000 to remounts. These figures were kept by C.V.S. R. MacDonald. (See also footnote, p. 185).

In the House of Commons, 8th Feb., 1902, it was stated that 89,705 horses had been captured. The war had yet another four months to run, and it is certain the total captures amounted to over 125,000 animals.



possible, but few people appear to realise the value of such observations, and still fewer know what to record and what to reject. Regimental losses during the war are most difficult to obtain, and in many cases owing to the numerous refits of horses, no record appears to have been kept. There is one remarkable exception: Captain A. S. Head, A.V.C. (R), who served with the Inniskilling Dragoons throughout the war, kept the most careful notes of losses from all causes in this Regiment.\* His tables are unique, and as a record of untiring zeal and industry, under most disadvantageous conditions, they are never likely in the future to be approached, let alone equalled.

He tells us that from November, 1899—June, 1902, the Inniskilling Dragoons used up 3750 horses.

The distance they covered in this time measured in a straight line and on a flat surface was 6116 miles. This must at least be doubled if we are to form any notion of the amount of ground covered.

On this basis one horse was used up for every 3½ miles covered during the war.

The following table shows the strength of the Inniskilling Dragoons on landing in Africa, the number of horses that joined the regiment through the war, and the number expended during the same period.

*Income, Nov., 1899 to June, 1902.*

Strength on landing	-	406
Remounts	-	3061
"Picked up" on the Veldt	-	222
Transfers from other Regiments	-	601

Number of horses joined 4290

*Expenditure, Nov., 1899 to June, 1902.*

Sent to Veterinary Hospitals	-	1600
Missing	-	201
Returned to Remount Depot	-	202
Abandoned	-	201
Destroyed	-	595
Died	-	482
Transferred to other Regiments	-	469

Number of horses expended 3750

Strength on 31st May, 1902 540

4290

The expenditure for two and a half years of active service was equivalent to the whole regiment being re-horsed ten and a half times.

As evidence of the amount of sickness and accident occurring among horses on service, it is interesting to observe that the 4290 horses furnished 4170 admissions, so that practically every horse was sick at some time or other during the campaign. In this connection it is important to note that not a single case is recorded as sick that could perform duty of any kind. For example, there

\* "The Wear and Tear of Horses during the South African War," Lieut. A. S. Head, A.V.D.—*Journal of Comparative Pathology and Therapeutics*, 1903.

were hundreds of cases of mange in the regiment at one time or other, yet only 23 figure on the returns during two and a half years.

It is well to bear in mind the amount of regimental sickness and inefficiency, as there are people who have suggested the withdrawal of veterinary officers from regiments on service in order to place them on the line. The figures above quoted show that there is an abundance of work to be attended to, not only in treatment but in prevention. Nearly a quarter of the above cases of sickness were treated regimentally and returned to duty without burdening the hospitals. It is not bullets which kill horses on service; we have seen this over and over again in these pages. Capt. Head's figures provide us with an exact expression. Out of 4170 cases of sickness occurring in two and a half years, only 163 were due to bullet wounds, and three to shell fire! Nevertheless, the Inniskilling Dragoons saw a good deal of fighting.

The next instructive table supplied by Captain Head shows the casualties for each march or engagement throughout the war, and the distance travelled; the table only shows the actual casualties during the march, and does not include those in the intervals between the marches. It is important to observe that the mileage is the distance covered between the point of departure and the conclusion of the operations. For example, in the thirteenth entry it reads as if the distance from Krugersdorp to Johannesburg were 297 miles. The two places are close together, but twenty-eight days circuitous marching occurred before the column came to temporary rest at Johannesburg. (See Table, p. 228).

One more regimental record has been furnished through the painstaking observation of a Civil Veterinary Surgeon, Mr. Roderick MacDonald (Canadian Graduate), served for fourteen months with the 1st Mounted Infantry. The following table shows the number of horses expended during that time:—

*Income, March, 1901, to 31st May, 1902.*

Strength on 22nd March, 1901	480
Remounts	775
"Picked up" on the Veldt	360
	1615

*Expenditure, March 1901, to 31st May, 1902.*

Died, Destroyed, Killed in Action	513
Sent to Vety. Hospitals and Depots	518
Number of Horses expended	1031
Strength on 31st May, 1902	584
	1615

The regiment in fourteen months was completely re-horsed over three and a quarter times.

Of the cases treated in the Field 36% were surgical, 17% were due to lameness, 12% to skin disease, 6% to disorders of the digestive apparatus, and 29% various.

\* There were 50 killed in action and 10 lost by lightning.

## 6TH INNISKILLING DRAGOONS.

Table showing Casualties for each March, and Distance Travelled during the War.\*

Time Occupied.		March.		Strength at Date of Marching.	Died or Destroyed on March.	Abandoned on March.	Missing.	Sick at End of March.	Fit at End of March.	Distance Travelled in Miles.	Remarks showing Principal Causes of Casualties.
Date From	Date To	From.	To.								
1899 10/12	1900 6/3	Arundel	Colesburg	490	£0	Nil.	13	41	376	30	31 killed in action; 20 destroyed, bullet wounds; 15 sore backs.
1900 6/3	17/4	Colesburg	Bloemfontein	298	4	Nil.	Nil.	22	272	200	3 destroyed from exhaustion; 1 died; 10 sore backs remaining.
11/2	14/2	Modder	Kimberley	94	5	Nil.	Nil.	10	79	80	5 destroyed, bullet wounds; 6 sore backs remaining.
15/2	13/3	Kimberley	Bloemfontein	79	4	9	Nil.	20	46	100	Exhaustion cause of casualties; 12 sore backs remaining.
6/5	12/5	Bloemfontein	Kroonstad	447	48	2	Nil.	63	323	120	31 killed in action; 14 died of wounds and exhaustion; 11 sent to veterinary hospital; 28 sore backs remaining.
20/5	6/6	Kroonstad	Pretoria	372	30	70	1	72	196	175	10 died; 20 destroyed from exhaustion; 70 abandoned; 30 sore backs remaining.
9/7	3/8	Pretoria	Middelburg	556	41	23	37	24	323	120	108 sent to veterinary hospital on march, mostly sore backs and exhaustion; 18 died and 23 destroyed, exhaustion.
18/8	6/9	Middelburg	Carolina	321	10	9	5	28	306	165	59 remounts joined; 22 horses sent to veterinary hospital, of these 11 were sore backs, 5 exhaustion; 19 died and destroyed, exhaustion; 11 sore backs remaining.
10/9	14/9	Carolina	Barberton	330	6	8	6	24	286	70	2 tulip poisoning; 1 bullet wound; 3 destroyed, exhaustion; 11 sore backs remaining; 8 exhaustion.
3/10	3/11	Barberton	Pretoria	271	44	49	24	48	224	310	216 remounts joined; 97 horses sent veterinary hospital on march, of which 39 were sore backs and 48 exhaustion; 92 died or abandoned, exhaustion; 24 sore backs remaining.
11/11	21/11	Pretoria	Meyerton	416	6	Nil.	9	10	391	55	3 sore backs.
14/12	16/12	Meyerton	Krugersdorp	377	3	Nil.	Nil.	1	373	40	1 died, exhaustion; 2 destroyed, fracture.
19/12	16/1	Krugersdorp	Johannesburg	406	27	Nil.	5	48	343	297	22 remounts joined; 46 horses sent to veterinary hospital on march, of which 28 were sore backs and 14 exhaustion; 13 cases of horse sickness; 18 sore backs; 16 exhaustion cases remaining end of march.
1901 27/1	6/5	Johannesburg	Middelburg	404	112	Nil.	25	20	405	350	156 sent to veterinary hospital, consisting of 14 sore backs, the remainder exhaustion and debility; of these, 25 died horse-sickness, 6 destroyed; the remainder died and destroyed, exhaustion.
12/5	30/5	Middelburg	Steynsdorp	420	21	Nil.	10	20	454	160	71 remounts joined, and 13 Boer ponies picked up on march; 20 horses sent to sick depot.
1/6	3/7	Steynsdorp	Middelburg	454	46	Nil.	Nil.	22	394	175	8 Boer ponies taken on strength; 22 sent to sick depot.
8/7	14/7	Middelburg	Pretoria	395	2	Nil.	Nil.	8	385	85	
22/7	31/12	Orange River Colony.		385	313	Nil.	38	314	519	1314	767 remounts joined; 91 ponies taken on strength; 40 received from A.P.M. column; 314 sent to sick depot and 99 to remount depot.
1902 1/1	18/5	Orange River Colony.		519	164	Nil.	9	203	496	1610	358 remounts joined; 208 horses sent to veterinary hospital; of those died and destroyed, majority were exhaustion.
21/6	29/6	Heilbron	Bloemfontein	540	Nil.	Nil.	Nil.	Nil.	540	160	

\* This table only shows the actual casualties during the marches, and does not include those occurring in the intervals between the marches.

The 1st of June, 1902, saw South Africa officially at peace, with thousands of horses, mules and oxen to dispose of. The total number of animals in the country on that date which had been paid for was 161,400 horses, and 93,900 mules.\* After deducting those required for the Army of occupation, 140,000 horses and some 74,000 mules were in excess of requirements, and the problem was how to get rid of these as speedily as possible in view of the cost of keeping idle mouths.†

The country was devastated, and a department was formed known as the Repatriation, the function of which was to restore matters to a condition which would enable a fresh start to be made by the community. This department relieved the army of some thousands of horses and mules, but there was still a large balance available for sale which was gradually disposed of within the next few months. Prior to this, however, all horses serving with units were inspected with the object of retaining in the service only the best out of the large stock available.

The army was full of glanders and mange, the latter was obvious, the former was not. The Repatriation Department naturally insisted on the mallein test being employed for all animals purchased by them, and many thousands of inoculations were made, but in spite of this the numbers were so vast, and the urgency of regenerating the country so great, that many could not be tested for want of time and available material, and no doubt a considerable number of cases of glanders found their way into various quarters of the country. This was the more marked with those animals sold in the public market, for which no guarantee could be given, and only a limited number of which had been tested. The Civil Veterinary Departments of all the Colonies regarded this dispersal of innumerable foci of both glanders and lymphangitis with natural apprehension, but the disposal of the horses was a very necessary measure, and every reasonable effort was made to reduce the penalty of purchasing from an infected mass of material. Nevertheless, the civil departments were kept very busy for the next few years in their endeavour to stamp out both of these diseases. By about September, 1902, the Army had reduced its proportion of animals to a peace establishment.

\* The Tables published by the Royal Commission show 151,100 horses and 94,600 mules. The difference in horses is due to the reinforcements from home and oversea contingents not having been included in the War Office returns.

† There is a great discrepancy in the various Tables of the numbers of animals existing on 1st June, 1902. The figures quoted are from the Tables in the Royal Commission on the War. There are others, which show the totals as follows:—

Horses	Mules	Oxen	Donkeys
142,159	76,640	74,300	12,800

### THE BREEDS OF HORSES.

Some reference must be made to a debate on the war in the House of Commons, reported in the *Times* of 1st February, 1902. It centred around the Remount question, and frequent reference was made to horses being "bad." During the war an attempt was made to ascertain the wearing qualities and staying powers of the various breeds of oversea animals. The only oversea remount with which no fault could be found was the English "bus" horse. There were many then, and probably many to this day, who believed that the special qualities of this animal were primarily due to his being English. In the above discussion Lord Stanley destroyed this myth, by pointing out that 90% of these animals were Canadians.

In the following table \* are shown the number of remount horses and mules imported from each country during the war:—

	Horses	Mules
United Kingdom	61,484	—
South America	26,544	—
Canada	14,621	—
Australasia	23,028	—
Austria	64,157	—
U.S. of America	109,978	90,524
India	3062	1114
Spain	—	15,229
Italy	—	7004
Cyprus	—	128
Uganda	—	306

The efforts made during the war to ascertain from Commanders the wearing qualities and suitability of the different breeds of horses, comprised in the above mass of material, are tabulated in the "R.C. Appendix 58," also in "C. of E. Rem. Appendix E. No. 14." At p.218 of the latter report, is a criticism of the contradictory character of these opinions.†

No veterinary officers were asked by the Authorities to record their opinion, either on the suitability for work or soundness of the tens of thousands of imported horses. We are, nevertheless, in a position to furnish the opinion of one who saw more of every class of horse than any other veterinary officer in the country. Major Blenkinsop took full advantage of his appointment as Senior Veterinary Officer of Remounts, and we shall add his opinion‡ to those expressed in the Reports above-mentioned.

The reports on *North American Horses and Cobs* were generally to the effect that they acclimatised rapidly, bore privation well, and were capable of looking after themselves. The big horses were not liked; as one officer expressed it "the rations won't

\* "R.C. Appendix 38."

† Of three ship-loads of North American horses, all derived from the same herds, and sailing about the same time, two were reported as excellent, and the third as utterly unsuitable. "Under these circumstances it is difficult to know what to do." "Colonel de Burgh, C. of E. Rem., Appendix E., p. 360."

‡ Extracted from his Campaign Report (unpublished).

keep any animal over 14·2 alive."\* As a breed they were generally considered clumsy and not very sure footed.

Blenkinsop draws attention to the frequency with which the North American horses suffered from defective eyesight, especially cataract. Splints and spavins were common. Defective hock action, and excessively large flat feet were frequent faults. He notes the presence among these horses of a tendency for the limbs to give way on board-ship through standing, the knee curving backwards owing to rupture of supporting ligaments. This condition was not seen in other classes of horses, excepting in a few Hungarians. The bones and joints of many of the U.S. horses were wanting in development; and such animals suffered from sprain of the flexors or suspensory, if called upon to carry heavy weights for long periods. The length of the incisor teeth of these horses renders the question of "aging" rather difficult. They proved themselves hardy animals, soon recovering from debility and exhaustion, and rarely suffering from serious illness.

*Russian Horses and Cobs.* There was a consensus of opinion that this animal was too slow. He made a useful M.I. cob, but was of little use for Cavalry. Generally, the Russians are rough in their pace, hardy, and do well under exposure and short rations. Russian ponies, according to Blenkinsop, are very liable to bony diseases of the limbs; the feet are frequently defective, the wall thin and brittle. He is a hardy animal who fattens quickly, is very quiet to handle and ride, but an inveterate kicker. He can withstand long hours and short forage. The feet are very liable to congestion, especially when the animal is fat.

*South American Horses and Cobs.* These were generally condemned as slow, stubborn, clumsy. It is pointed out that good Argentines existed, and that only a few of the best were imported. General Elliott stated that "it is impossible to conceive a worse animal for service requirements," than those imported from the Argentina for the war, but that good ones exist. Blenkinsop describes the Argentine horses as very hardy, wanting in quality, and more fitted for slow draught than riding.

*Canadian Horses and Cobs.* These were generally reported upon as good hardy animals that retained their condition under stress of service. See also p. 112 of this History, which deals with the recuperative powers of Canadian horses. Lieut. Morrison † tells us that out of 137 horses, the strength of "D" Battery Royal Canadian Artillery, which landed in Africa in March, 1900, 66 were alive in the following November after a good deal of marching and

fighting.\* Blenkinsop regards the Canadian horse as more suitable for draught than for saddle. They were generally sound horses, and did good work in the Field. He notes the presence among them of roaring and the frequency of defective eyesight.

*English Horses and Cobs.* There was a consensus of opinion that the English horse required to become acclimatised before the best results were realised. The bigger he is the more unsuitable he becomes; he must be well fed.† "The English horses that, owing to good fortune, or to exceptionally strong constitutions, have not died before they became properly acclimatised, are the best horses for work in the Field"‡ (Col. Rawlinson). Another officer says:—"A bit of a fool when put immediately into the Field, as he has been so well cared for; he takes time to adapt himself to strange conditions of service, such as grazing, standing still, watering, etc., and is a bit like his British rider in that respect" (General W. Knox). Blenkinsop regarded the English horse as the most technically unsound of all those imported. He points out faults which render him a bad horse on service, i.e., constantly kicking, bad grazer, difficult to drive in mobs, and slow to recuperate from debility and exhaustion the result of hard work. A very large percentage became roarers after they had been in South Africa any length of time. With all his faults he admits he was the best animal imported into the country, but he required feeding, careful attention, and protection from the weather until acclimatised. Blenkinsop notes the large percentage of horses shipped as English which were not so bred.

*Australasian Horses* These animals take a year to acclimatise in India, and they require time in

\* As an example of the vitality of the Canadian horse, he relates the story of one left behind for dead owing to exhaustion. The animal subsequently struggled along and came into camp, and the men gave him a cheer.

† Other information bearing on this point has already been sufficiently referred to at pp. 122, 133. From the large unsuitable horse, which the Director-General of the Veterinary Service urged the Inspector-General of Remounts not to buy, the Remount Department, with two years experience in the Field, had come down to the polo pony stamp, see footnote p. 122, also Cable 104, Cd. 963, to the War Office, which runs as follows:—"English horses arriving still too heavy. Well-bred, weight-carrying polo pony is the ideal required for all mounted troops, who now carry little on the saddle."

Well-bred weight-carrying polo ponies, to the number of 10,000 or 12,000 a month, were now asked for! Where was it supposed they were to come from, even if they could have been purchased at remount price?

The Court of Enquiry into the administration of the Army Remount Department, was the only body distinctly charged with the duty of inquiring into the question of whether the proper stamp of horse had been provided for the war. It is somewhat significant that Colonel Duck, whose evidence is given at p. 122 of this History, was never called before it, so that the initial blunder made by the Remount Department in providing, against skilled advice, a class of horse utterly unsuited to the country, does not appear in the Report subsequently presented to Parliament.

‡ In this connection, see the remarks, pp. 134, 135.

\* Even the Remount Authorities must by this time have become convinced of the value of the small horse. In a letter to the War Office the Assistant Inspector of Remounts, S. A., under date 27th November, 1901, says:—"Even . . . keep demanding ponies, which are the only things they can feed enough to keep them alive." Nevertheless, in his report to the War Office, subsequently printed as a Parliamentary Paper, there is no mention of starvation rations.

† "With the Guns in South Africa."

South Africa. All big and leggy horses failed; the others did well if given time. Like English horses they require to be well fed. They are slow at recovering from exhaustion, a bad feature in a soldier's horse. Australian horses are noted by Blenkinsop as liable to respiratory trouble, especially catarrh, and bilious fever. They require a long time for recovery after a voyage. The muscular development is imperfect, and they need long and continuous exercise and feeding before being fit for service. He regards the New Zealand horse as not only better developed but a far more useful animal.

*Hungarian Horses.* Universally condemned. Blenkinsop notes the "softness" of Hungarian horses, their liability to congested feet, to saddle and girth galls, their lack of physical development, and their difficulty in recovering condition after emaciation.

No special report is published dealing with the horse of South Africa, perhaps none was necessary. He was superb, though our Remount Department would not look at him until compelled.\* Colonel Thorneycroft, who raised and commanded an Irregular Regiment of Mounted Infantry during the war, told the Commission, "R.C. Appendix 52," p.353, that a very large number of the original animals which came to him on raising the regiment *went all through the campaign.*† They kept their condition in a wonderful manner considering the hard work they performed. Many were small ponies, but "they seemed to carry the heavy weight with far greater ease to themselves than a big horse."

General Plumer ("R.C. Evid., Q.18034"), in referring to the South African horse, said that nearly 30% of his were effective at the end of twelve months' service in the Field. This he attributed to there being time to get them into condition before war broke out. He stated that he himself rode the same horse throughout the whole campaign. "I hardly had another horse."‡ We have seen the character of the work in which General Plumer was engaged. Blenkinsop draws attention to the immunity of the South African horse to disease, his defective symmetry and conformation, and the surprising amount of work that a veritable weevil could perform. Their peculiar short teeth and coarse grazing render their age very difficult to judge.

It is, however, quite unnecessary to bring forward any other evidence of the wonderful vitality of these horses, than that afforded by the stout and prolonged resistance offered by an enemy to whom marching on foot was unknown.

Lord Stanley, in the House of Commons' "bad horse" debate, previously referred to, struck one of the few practical notes which appeared throughout,

\* See pp. 123 (Statement by Q.M.G.), 131, 132, 133.

† The italics are ours.

‡ He adds that he only paid £19 10s. for this animal, and that his last march was one of 60 miles.

when he stated "that the real secret of a good remount was condition." It is impossible to say whether a remount is going to be good or bad, whose physical condition is such that he is dead in a few days or even hours after being issued. He never has a chance of showing what he is made of. The remarkable divergence of views to be met with in the Appendix 58 of the Royal Commission, and that tabulated in the "C. of E. Rem.," App.E 14, can readily be explained on this basis. It was the previously hard condition of the "bus" horse which enabled him to recover rapidly from the sea voyage and put on a good front. Further, he was not hustled; the majority of these horses went to Natal where they had by no means a hard time at the early part of the war. It is not intended to suggest that "bad horses" were not sent from overseas. The ill-selected, underbred, cheap Argentine could never have been anything but what he was, but he certainly never had a chance. The Hungarian "flat-catcher," even when conditioned, was not of the "cut and come again" type, and the big horse of any breed is a "bad horse" for war. Condition will help, but not remove, "sickle hocks," overshot fetlocks, "turned-out" toes, and long backs; nevertheless, the wholesale charge of "bad horses," heard within and without the House of Commons, represents in the main the loose expression of opinion of men, who, with no technical knowledge of a highly technical question, are led away either by their own ignorance or that of others.

We have no other object to serve than that of historical accuracy and fair criticism, whether to partisan or opponent. When the enormous numbers of animals purchased for South Africa are borne in mind, it is not a matter for surprise that "bad" ones were to be found. Does no dealer ever buy a bad horse? Does no skilled layman every buy one he regrets having taken? What, therefore, was to be expected when officers of limited or no knowledge of the work † were sent with a blank cheque to various parts of the globe, to learn at the public expense one of the most difficult branches of trade? If a merchant were compelled to send inexperienced men to buy tea and sugar on his behalf he would expect mistakes to be made.

\* The following are the official Cables, Cd. 963, in which specific instances of bad horses are reported:—

- Cable 68. December 19th, 1900. "Hungarian horses condemned as 'flat-catchers' . . . Big horses, especially Australians, last no time."
- Cable 81. May 1st, 1901. "American horses arriving too leggy and loose made."
- Cable 95. October 15th, 1901. Reporting on a consignment of horses from Australia says, "Attribute bad condition to class of animal. Big, long-legged, ragged-hipped, coarse horses. . . ."
- Cable 112. January 15th, 1902. Reporting that the horses of the Bays were of the wrong stamp to last in Africa. Asks for greater care in selection generally.
- Cable 114. January 22nd, 1902. "Considerable percentage of horses landed lack compact formation . . . Australian horses specially badly selected."

† See this History, p. 124.

We doubt whether the purchasing officers of no experience had any conception of the difficulty of their task. That they had no conception of their own ignorance is, we think, undoubted, for they were not compelled to accept the position. Further, did they not all belong to the mounted branches of the Service, which of itself, *from an Army point of view*, was a sufficient guarantee of a knowledge of horses? It was the fair price paid by the State and the enormous numbers purchased which saved the inexperienced buyer. It is absurd to suppose that when animals are being bought by tens of thousands only undesirables are presented. Had a better price been paid for the Argentine a better class of animal would have been obtained. The purchase of big horses must not be laid to the charge of the remount purchasing officer. The War Office fixes the standard of height, and from this scale the purchaser is not permitted to depart. We submit that the purchasing officers made a good average selection, for the reason that in dealing with such enormous numbers, ordinary care being exercised, an average must be reached which represents the horse of the country. It is presumed that the Authorities were satisfied that the horse of the country was suited for their work, or else the purchasing officer would never have been sent there.

In those cases, such as Hungary, where the horse of the country failed, the charge must not be laid against the purchasing officer. The only possible exception to this dictum is the horse of Australia, which was, from Indian experience, repeatedly reported as badly selected. But may not this have been due to the fact that the Australian horses employed by the Army in India are carefully selected, after importation, from four times the number required, and therefore do not represent the general type of the horse of the country? It

\* Lord Downe, in his "Report on the Remount Operations in Australia—Parliamentary Paper, Cd. 995," says:—

"The general idea in England is, that Australia swarms with horses, and that good horses are to be bought like rabbits—for next to nothing . . . The breeders mostly breed for racing purposes, and thus the greater part of the surplus horses are weeds . . . In another part of the same report the Queensland horse is described as "light, weedy, and badly nourished . . . totally unbroken and not used to be handled like paddock-bred horses. . . . Many of these found their way to South Africa."

"There are doubtless large numbers of good, useful horses bred, but beyond the local requirements and the

is stated, "R.C.", Q, 13,065, that the purchasing officer in Australia rejected 50% of those presented for sale. Nevertheless, it appears to us that the price he paid was not sufficiently high to obtain a horse suitable for immediate use.

The smaller the numbers purchased the greater chance for ignorance and inexperience to demonstrate their presence. Few wars in the future, let us hope, will afford two-and-a-half years for the training of its remount officers, and experience extending to the purchase of half-a-million of animals; it must not, therefore, be imagined that we advocate the inexperienced and ignorant being sent purchasing in time of war. Where, however, are skilled purchasers in sufficient numbers to be obtained? Personally, we would select from amongst the largest dealers in the country, creating rigid safeguards, and giving them the salary of a Cabinet Minister while employed. Such a scheme would be economically sound.

The purchasing officer is not responsible for soundness; the cry of "unsound horses" was at times as frequent and undeserved as that of "bad horses." Some fifty cases of ringbone, for example, were reported to have been sent in a single consignment from Austria!\* Imagine the amount of work required by the dealer and his agents, to "beat up" a sufficient number of cases of this disease to secure the passage of fifty through the first line of defence at the place of purchase? Extravagant charges of bad horses and wholesale unsoundness may be dismissed.

Indian market . . . which takes 6000 to 8000 horses a year, there has been no great demand outside."

In describing the difficulties of a Remount Agent dealing direct with breeders and small men, Lord Downe goes on to say that the general system of horse disposal in the country is by means of large auctions. "Is it possible at any public auction, where horses are sold at an average rate of one a minute, for an amateur buyer in a strange country to compete with professionals at their own trade, and in their own country?"

The trials, annoyances, hard work and hardships, of purchasing officers form no part of this History; they were very real. The good work done in the various countries has been buried beneath the obloquy created by the disastrous organisation of this service before the War. "Two Years with Remount Commissions," by H. Sessions, F.R.C.V.S., may be read with profit and pleasure.

\* See Report "C. of E. Remounts," para. 203.



## PART III.

There are several special features which could not be conveniently dealt with in the text, and these it is intended shall form the subject of this part of the History. Some, like horsemastership, have already been frequently referred to. The transport of horses by sea and rail; the care of transport animals in the Field; shoeing; sorebacks; epizootic diseases and their management; acclimatisation; poisonous plants, the supply and accounting for equipment, etc., are all questions which, considering their importance, it has not been possible hitherto to notice with sufficient fulness.

### *HORSEMASTERSHIP.*

Under this designation is comprised the very large question of the care and management of horses under all conditions. It embraces every subject which contributes to the well-being of the animal, a knowledge of which is essential to his health and preservation. This information has to be gained by prolonged practical experience; it cannot be learned on a campaign, but only as the result of a previous apprenticeship. So ignorant are the majority of Staff Officers of this subject—from causes referred to at pp. 115, 192—that it is the exception to find amongst them any who, without previous experience in the mounted branches, or the instincts of a horseman, have any knowledge of the subject, or are aware of its extraordinary importance. The idea with such is, apparently, that if a man is able to keep his place in the saddle, everything connected with the care and management of the horse automatically follows. Unless this is the view held, it is impossible to explain the policy which brings thousands of irregular horsemen into existence in an emergency. Take the case of the 1901 Contingent of Imperial Yeomanry. We have it on the authority of Lord Chesham, Inspector-General of Imperial Yeomanry,\* that 75% of the men had not been on a horse before they passed the riding school test at home, and that 25% had ridden very little. Apart from the question of sending such material as mounted troops into the Field—a matter which does not concern us—what is to become of the wretched animals of which these men are placed in charge? The Yeomanry of 1901 are not the only examples of this class of organisation; we have met with it in the regular

forces, especially in February, 1900, p. 31, and in all cases it has resulted in a heavy loss of animal life and inefficiency.

It would seem, therefore, that the responsible authorities who call into existence mounted troops from untrained material, are unconscious that the horse needs certain essential requirements, which can only be furnished by previous knowledge, and unremitting care and attention.

It would be a fair assumption that regular troops, trained to the mounted service, should be able to show the result of their experience and knowledge of horsemastership, by the better preservation of their horses and a vastly lower rate of inefficiency as compared with those not so skilled. Unfortunately, during the South African campaign, this was not so; with the exception of the Artillery the mounted branches showed, with but few exceptions, a deplorable deficiency in this vitally important question; so marked was this that it formed one of the questions which the Royal Commission on the War was specially directed to investigate. Before referring to the results of this inquiry, it will be well to see whether any conditions existed before the war in the Cavalry arm, which can help to explain this astonishing fact. It is a long story with which this History cannot be burdened, but only the essential features stated.

As a matter of fact they have already been hinted at on p. 117. The original organisation of the Cavalry gave the individual officers no control over their horses or interest in their management; diet stable management and work were regulated by the colonel commanding the regiment, and the troop officers obtained no experience, but were tied down to a lifeless routine which was as well, and frequently better, carried out by the Sergeant-Major of the troop as by an officer. Under this system a horse could not be taken out of the stable without the colonel's permission. Shortly before the war all this was changed in principle, if not in practice. It is a very hard matter to effect a radical change in organisation in a day, especially in an old army like ours which lives on tradition, and is intensely conservative. Under the new system the squadron and not the troop became the unit, and squadron commanders were, at least in theory, given actual command of both horses and men, and held responsible for their training and well-being. It is no matter for wonder that many were by no means anxious for such independence, for it carried with it

\* "R.C. Evid." Vol. i., p. 288, Q. 6731.

responsibility which came too late in life to be welcomed. Time therefore was necessary for the new ideas to develop, and for a new generation of officers to come into existence. This, perhaps, was only realised by the relatively small proportion of men in the world who think. Meanwhile, far-reaching changes were under consideration in connection with the horse question, one of the earliest being that the squadron officers were to carry out the training of remounts and prepare them to take their place in the ranks. To enable this to be effected it was recognised that previous training of the officers was essential, and selected officers were sent abroad to see how these things were managed in Germany, France and Italy. In these countries the squadron system was almost as old as the army, and it is quite true that under the conditions of military service in these countries a squadron system of horse-training had become so deeply a part of Cavalry organisation, that no difficulty was experienced in carrying it out, as opposed to the system in this country of having one expert in the regiment who trained the whole of the horses for the various squadrons. We do not defend the latter system; it was radically defective, but it gave each regiment a trained officer—who was the selection from among hundreds of men all specially trained by a long course of Riding School work—for the responsible and technical duty of converting the wild and raw material into the steady, handy troop-horse.

The officers deputed to visit the Continental armies brought back with them much valuable information, and some which was bad. In France they saw a handful of men and horses, the pick of many thousands, go through a Riding School performance such as would have been a credit to the finest circus in the world. The riding of these men is superb, the handling and management of their well-broken horses a something to remember, the whole carried out before a crowded house, with a solemnity and silence that an occasion of such dignity demands. It was a demonstration in the methods of the High School of Horsemanship, first developed in Italy during the 16th Century, before mediæval picturesqueness and pomp had found its natural limits.<sup>o</sup> The British delegates on their

return from the Continent were enthusiastic of the new principles. It seemed, however, to escape observation that the Continental system of training was carried out by men who made the army a life calling, it was their profession. Their means did not admit, as with us, of coming to the Service for a few years and then retiring when it suited them; they came to it for life, and accordingly, under long and skilful early training, became expert. The knowledge and experience gained by officers of our native Cavalry in India is identical in nature.

Among the absolutely bad principles in horse management brought back by the British delegates was that of the Continental system of stable bedding. It is usual from motives of economy (?) to leave the bedding down in the stables of France, Germany and Italy for periods of three or four months at a time; meanwhile, the dung and urine are covered over daily with fresh straw and well trodden by the horse into a firm, yet elastic bed, which grows. When it has assumed an inconvenient height it is removed, and the putrid condition of the material and its overpowering stench when the mass is opened up cannot be adequately described. This pernicious system of Continental bedding at once proved popular. The officers liked it: the fermentation of the mass kept the stable warm, and the saving in bedding gave them a larger ration of hay or corn to work with: the men liked it because it represented a fraction of the usual labour. The veterinary service condemned it as insanitary and destructive to the feet. British stable management had hitherto been regarded as the acme of perfection, the keynote of which was cleanliness.

By the adoption of this filthy system in our Cavalry stables, the hands of the clock of progress were put back. The authorities apparently unwilling to destroy the initiative the new squadron system was intended to encourage, took no action to abolish the disgusting practice. At this moment war broke out.

It is evident that the sudden transition from helpless inactivity and hopeless routine, to chartered and uncontrolled licence was bad, for the reason that the needful knowledge had not in the meantime become acquired. It would have needed twenty years to have changed successfully the working of the machine—it barely had as many months. In consequence, the Cavalry entered upon the war in South Africa not only with an in-

right and left, and passage, and if he can do these six things, he is quite fit to go into the ranks, and you ought to be able to teach him these six things in four months."

\* "The necessity for ample means [in the Cavalry] bars efficiency. A rich man seldom remains long enough in the service, nor can he be said to make it his profession; he consequently lacks the necessary incentive to advance himself."—Earl of Scarborough, "R.C. App. 23," p. 170.

In his evidence before the Royal Commission, Major-Gen. Marshall, an Artillery officer, in Q. 18,571, says the young officer "comes into the Artillery to make it a profession, and he is in every way encouraged to do so. It is not true of the Artillery officer that keenness in his work is unfashionable."—"R.C. Evid.," Vol. ii., p. 364.

\* At one time the Cavalry horse remained so long under training that his joints were partly worn out before he had completed his elaborate education. The bulk of his work took place in the School, the result being that, at the time we are speaking of, not 10% of the Cavalry horses would go alone. If a man was wanted from the ranks to take a message a volunteer had to be called for. All that has now changed, thanks to the younger school of thought. General Sir Douglas Haig (who was Assistant Adjutant General to the Cavalry Division during the War) gave the Royal Commission his views on the subject of the military training of horses:—

"The men must do less 'show riding.' The Riding School has come to be regarded as the end and object of our training, instead of only being a means to an end . . . Q. 19,488. "There are only six things you want to teach the individual man in riding—to start his horse, to stop his horse, to back, to turn to the right and left, to circle to the

adequate knowledge of the question of practical horsemastership, but were still suffering from the effects, and even continuing to labour under the vicious system, of centralisation and absence of authority.

The great contrast this presents to the Artillery arm may be gathered from the remarks on this question at p.117. Here were two branches of the service, both men and officers respectively, recruited from the same class. Under the system of undivided individual responsibility and sound regimental creed, the one remained a self-reliant, self-contained branch devoted to the welfare of its horses; the other with no regimental creed, with no personal control, constantly looking to higher authority for permission to act, and ignorant what to do in its absence, began and ended in failure. These things cannot be learned on service; the principles, at least, must be brought into the Field.

In this matter of failure we write broadly. There were individual examples of fine horsemastership, and knowledgeable officers, who, given a free hand, developed to a remarkable extent, but these few were unable to leaven the mass, and above all the private soldier could not now be reached. The artillery driver has been taught for a hundred years to live for his horse, and that without it he is a useless encumbrance; the private of Cavalry was never so taught. He was trained to believe that his horse was a conveyance, that to be seen off its back was a dishonour and reduced him to the footing of an infantry soldier! He was never trained in the belief that his horse was his first and sole consideration. Individualism in the Cavalry soldier in this respect is required a hundred-fold more than in the Artillery, where teams work together under the eye of a non-commissioned officer. In Cavalry, men are frequently by themselves, away from the eye of a controlling superior. It ought ever to have been an established Cavalry principle that none but men capable of taking care of their horses would be retained in an arm of the service, which, for many reasons, is regarded as possessing attractions denied the others. Such, however, has not been the case.\* To go back as far as the Peninsular War is quite sufficient for our purpose, it was a matter of notoriety how badly the British Dragoon looked after his horse, while the German Hussar working side by side with him had his animal fit.† At that time the Artillery were as

particular regarding the care of their horses as they are to-day. They had a creed, the Cavalry had none. They had none in the Crimea. Lord Cardigan allowed the horses of the Light Brigade to starve rather than employ his idle regiments on transport duty, and if this was the spirit shown by the Commander it is no subject for wonder that it existed through all ranks. From the Crimea to the Egyptian Campaign of 1882 was sufficient interval to have placed matters on a sound footing, but nothing was done. A few days campaigning in Egypt saw the Cavalry disappear; underfed and overweighted they melted away like ice in a summer sun. Starved horses were seen standing next to a growing corn crop, of which those in authority failed to take advantage, for the reason, it is said, they did not recognise it was a forage plant, and perhaps because they were waiting for authority.

In other matters they showed an equal want of initiative, perhaps even interest. Sore backs, the bane of Cavalry, had never been systematically studied; the regulation method of dealing with them was to punish the man who rode the horse. As to the weight carried, it was not until some time after the Egyptian war that it was recognised as crushing, and equivalent to the weight of a second rider. In fact, there were old and responsible officers of Cavalry who believed that the greater the weight placed on the horse's back, the greater care shown by the rider to prevent it causing damage! The question as to whether the horse could effectively carry it never seems to have been considered, yet all these were hunting, and the majority, racing men.

The first real insight into what Cavalry were capable of accomplishing under skilled management was obtained in the Nile Campaign of 1884-85, when the 19th Hussars showed what horses and men could do under conditions as severe as can well nigh be imagined. The resuscitation of the Cavalry arm began from that small nucleus of earnest officers and well-trained men; crystallization had begun when the war in South Africa broke out; the crystals were small and imperfect, and readily dissolved on agitation; they soon received this stimulus and at the hands of the authorities.

Cavalry is a very expensive arm to create, train, and maintain. On arrival in South Africa the portion which passed into Cape Colony found that the rations for their horses was to consist of 10lb. grain and no hay, see p.14, *et seq.* The hay ration was to be obtained by grazing horses where no grass existed. It further seemed to have been forgotten that, at enormous expense, the regiments had been sent out

Dragoon was so great, that the German Legion could always put 100 horses in the ranks to our 10.

Mercer says the great distinction between the German and British Dragoon was the affection for and care of the former for his horse. The German would sell everything to feed his horse, while the British Dragoon looked upon the animal as a curse and source of perpetual drudgery to himself.

\* General Rimington, in his evidence before the Royal Commission, vol. ii., p.585, says:—"I found throughout the war, with all sorts of troops, and all ranks, that care of horses comes naturally to very few men, except those brought up from boyhood with horses. As a rule, all other soldiers only do what they are compelled to do, and at best regard the care of their horses as a very weary and irksome necessity."

† "Military Opinions," Field Marshal Sir J. Burgoyne; "Diary of the Waterloo Campaign," Captain Mercer, R.A. Sir John Burgoyne said that the difference in care bestowed on the horses by the British and German

to fight, and that grazing was a slow process \* which could only be carried out during the day, at which time they were occupied with the business for which they existed. Over and over again in this History has attention been drawn to this question, and there is no need here for further elaboration, the point is self-evident. The action of the authorities was viewed with dismay. Every application for hay was met by instructions to graze, and for an increased corn ration by the reply that only a single line existed, the capacity of which was limited. Is it any wonder that under these conditions the daily wasting of horses from circumstances beyond the control of those in charge was viewed with something approaching indifference? It is difficult to maintain interest in the condition of horses which are being deliberately semi-starved by authority, in spite of every representation! Anything in this connection more appalling cannot be imagined, and as our History shows, before the Cavalry Division had reached Bloemfontein its trained horses had disappeared. This system of horsemastership was not calculated to stimulate the zeal of officers or men, and among other far-reaching pernicious effects, it fostered a spirit of indifference. The liberal supply of horses put the final touches to this hopeless picture. Who can possibly declare the horse supply to have failed who has read the figures contained in these pages? It was good, far too good, and led, as all excess of supply leads, to waste. The moment officers and men realised that another horse was forthcoming when the present one was ridden to a standstill, care was thrown to the winds. They were not ignorant of the fact that the animals so supplied were hopelessly unfit; that was not their responsibility, for they were powerless to prevent the issues. The traditions of their service fostered indifference. It is difficult to find a word which expresses their acquiescence in men sitting on their horses' backs when they ought to be standing on their feet, or leading their horses on the march; or of squadrons not grazing, if even only for a few minutes, while standing in long grass waiting for orders; or of passing a water supply without slaking their horses' thirst; or of taking no systematic steps to prevent overloading the animal with unauthorised material, a thing every soldier is liable to do on service. The produce of a neighbouring farm hung to one side of the saddle causes it to heel over and press on the withers; a chair for firewood hanging from the rear arch, or a farm door resting on the root of the neck, are not features which can escape observation, and are totally ruinous to horses' backs.

The want of kindness shown by men to their horses cannot have escaped the notice of their officers. The utter want of sympathy with animal suffering; the extraordinary indifference of the soldier to the welfare of the horse on whose powers

\* It takes a horse one hour to eat three pounds of hay. When he has to find his fodder and cut it himself, he will naturally eat less than this in a given time.

of endurance his life may at any moment depend; the vicious spurring and "jabbing" in the mouth at every fault, show how much there is yet to inculcate if animals on service, be they well fed or starved, are to receive humane treatment at the hands of those to whose care they are committed (see p. 79).

To avoid any possible charge of bias, it is desirable here to reproduce a summary of the evidence of some Commanders in the war on the subject of Horsemastership, taken from the Evidence in the Royal Commission.

Lord Roberts, himself a horsemaster, said it was not sufficient that Cavalry or Mounted Infantry should be able to ride, but they must know how to get the utmost out of their horses by good treatment and never-failing consideration of their wants. "Until the soldier is held directly responsible for, and takes a personal interest in, the condition of his charger, until he learns to rely on his own common sense and experience, not merely on the orders of his superior, that this condition is maintained, our horsemastership is sure to be indifferent." † We have seen in this History ‡ the steps he took in this matter almost as soon as he landed, and the orders published, not only as regards horses, but mules and transport oxen.

Lord Kitchener stated that the care of horses required more attention; he said it was difficult in time of war to instruct men in horse management, and that they should receive more careful instruction in this matter during peace. §

General Buller said the horsemastership was bad. \*\*

General French stated that the regimental officers and men were very careful of their horses, but their training was too narrow; they understood stable management better than the care of horses in the Field. Of this he gave examples of the want of knowledge in the selection of grazing ground at the early part of the war, through ignorance of the African veldt; the want of knowledge how to utilise the food grains, such as barley, maize, wheat, to be found on farms, by either overfeeding with them, and so causing digestive trouble and laminitis, or neglecting the available supplies through excessive caution. Horsemastership in the Field, he states, is altogether a matter of feeding. ¶

General Lord Methuen, speaking of Yeomanry and Colonial horsemastership, said they had no idea how to save a horse or nurse a tender back. He found by marching instead of re-mounting the dismounted men that their care improved. §

\* R. C. Report, p. 45.

† Pp. 54, 75, 144, 195, 196.

‡ R. C. Report, p. 47.

\*\* R. C. Evid., Q. 15,494, p. 212.

¶ Idem, Q. 17,129, p. 301; Q. 17,208, p. 305.

§ .. Q. 14,219, 14,220, p. 123.

General Ian Hamilton could not see much to choose between the horsemastership of the Cavalry, Mounted Infantry, Oversea Colonials, or National Scouts. He adds that the only class of men he met with who were constantly and eagerly on the look out for a chance to save their horses and give them a bite of grass or a drink of water, were those South African Colonials who rode their own horses.\*

General Hunter stated that in the Mounted Infantry a man who was suddenly taken off his feet and put on a horse needed to be taught horsemastership; horsemastership indicates previous training, you cannot be a master without learning.†

General Gatacre held that the knowledge of how to save horses comes with experience; it cannot be taught in a year or two. Much training is required to teach a man to be in sympathy with his horse.‡

General Bruce Hamilton believed that horsemastership is very much a question of discipline.\*\*

General Warren thought that officers of all ranks were not sufficiently taught about horses, and suggested that if every officer could shoe a horse, and know something about the ways of one, things would be much better.††

General C. E. Knox said the Mounted Infantry must be taught how to look after and take care of their horses; in his opinion they do not know anything about this, and the Cavalry were much the same.‡‡

General Rundle said the horsemastership was very bad. It was impossible to get the men to dismount from their horses when halted; they would sit on them for half-an-hour unless somebody told them to get off. The experience of this witness was confined to irregular mounted troops. §§

General Plumer believed that horsemastership and discipline go hand in hand. The man must always be thinking about his horse. §

Colonel Haig (D.A.A.G., Cavalry Division) said all ranks in the Cavalry must be taught to realise that the horse is their chief arm and how to look after him in the Field. Hitherto there has been too much pampering in peace time.\* \*

Brig.-General Rimington. This officer early in the campaign drew up "Notes on Horsemastership," in which he emphasised the necessity for supervision by officers; grazing at every possible

opportunity; men never to sit on their horses at a halt; to off-saddle at every opportunity, if only for five minutes; the kit on the horse to be reduced to a minimum; men to dismount and walk down (but never up) all hills. Men giving horses a sore back to be made to walk. In his evidence, General Rimington, in referring to the Mounted Infantryman, said, "when put on a horse, he did not know what to do with it," and added, that a man once said to him, he "did not know whether to feed it on beef or mutton." \*

\* Idem, Q. 12,652, *et seq.*, p. 27. This cavalry general's evidence is of such importance, that we reproduce a fuller summary than the above. At the outbreak of the war he raised an irregular Corps of Scouts; he gave the Royal Commission an outline of his orders on Horsemastership, which were drawn up for their guidance:—

"Grazing was resorted to at every possible chance. The moment a man gets off his horse he throws the reins over his horse's head, and the horse stands and grazes, which makes him quiet for dismounted work and so on, and he is also nibbling whenever the man is dismounted.

"The men are never allowed to sit on their horses at a halt. That was a great fault with most troops, and wants some legislation. I mean to say that we ought to try and get a rule about that in future, that a man should never sit on his horse at a halt. The ordinary cavalry soldier does; he gets into a habit of it in the Riding School.

"The horses were off-saddled at every opportunity, even for five minutes. Our saddles were light, we had not much on them, it was no trouble to the man to unlance the (cynch) girth. We had no breast plate or crupper. . . . In the retreat from Sannah's Post my men off-saddled while the Boers were pressing us so . . . and were watering and feeding them. The Boers were very near, and things were pretty tight, but the habit was a good one. I was rather annoyed, because I thought we should not get away. I thought it was playing it rather fine.

"The kit carried on the horse was reduced to a minimum. That is absolutely necessary in any mounted operations; you cannot do anything if you have a heavy kit on the horses . . . It was the ordinary shooting kit that a man would go out in to shoot buck. . . . At the end of the war we reduced the Cavalry Kit in my regiment to the same thing.

"The men were made to dismount and walk down (never up) all hills. . . . It is no good taking the man off the horse when he is going up hill . . . because the saddle gets well shifted back, which is a good thing, and a man does not mind walking down hill; whereas, if you put a saddle and big weight on your horse going down hill, you distress it more than by going up hill. . . . If you are scouting you want to be on the horse going up hill, because you do not know what is going to happen when you get to the top. When you are at the top you have seen what is there."

It is important in this respect to learn the difference between cavalry and artillery horsemastership.

Colonel Davidson, in his evidence before the Royal Commission:—Q. 18,660, in speaking of artillery operating with cavalry, complained that the artillery had insufficient halts.

"If anything goes wrong with a cavalryman's horse he can stop and put it right, and canter up and rejoin his squadron;" but if a horse in a gun is beginning to get wrong, unless you have a halt, and can take him out and put another one in, or readjust his harness, that horse will begin to hang back, and he will kill the other five horses in that team. I do not know that I am allowed to say exactly what I think, but I think that killed a great many splendid horses which, with the best of horse-management, would have done the whole campaign. We sometimes went 25 miles with only two halts, whereas, by trying more to

\* R.C. Evid., Q. 13,941, p. 110.

† Idem, Q. 14,590-1, pp. 138, 139.

‡ Idem, Q. 16,772, pp. 272, 273.

\*\* Idem, Q. 17,468, p. 313.

†† Idem, Q. 15,779, p. 229.

‡‡ Idem, Q. 17,579, p. 320.

§ Idem, Q. 17,885-6, p. 331.

§ Idem, Q. 18,097, p. 341.

\*. Idem, Q. 19,299, p. 404.

General Baden Powell regarded efficient horsemastership as essential to the success of Cavalry. He urged that it cannot be picked up at once by hastily organised troops. It is a matter of experience and training, but even yet requires developing in the Cavalry.\*

General Brabazon. The evidence of this officer had better be given in his own words:—

"I really believe, although I say it, that I was the only man, certainly the only General Officer, who tried to stop the abuse of horse-flesh. I never saw such shameful abuse of horse-flesh in the whole course of my life as existed throughout the whole campaign, and not an attempt was made to check it . . . . One never saw an irregular man go except at a gallop, he thought it was the normal pace for a horse . . . . The horses were abused in every sort of way, and there was no attempt made to check it. I tried my little best with the draught animals and with the mounted troops, but could not do much. I was shocked, I was horrified. We might have saved at least 25 if not 50% of our animals if proper care had been taken of them. But that must come from the head; everything filters down from the top, from the head, and I do not think from the very tip-top of the whole lot they cared twopence how horses or draught animals were abused." †

The pages of this History show, in the reproduction of the orders bearing on the care of animals, that this matter had not been neglected as the witness believed.

The Earl of Scarborough handed in a Paper to the Royal Commission, entitled "Secretary of State for War's Scheme with regard to the Yeomanry." In this he says ‡ "As a rule officers (Cavalry) are bad horsemasters, having no idea of taking care of their horses. This important part of their duties is utterly neglected".

The extracts made from the evidence of the above officers point very conclusively to the fact that the care and management of animals left much to be desired in all branches, excepting the Artillery. On the latter point there was a consensus of evidence as to the care and devotion shown by all ranks, °°

halt where there was grass, and letting the horses get their heads down, we should have done the whole of that march without losing any horses."

Q. 18,663. "If you trot through heavy sand, you knock your horses up; if you trot up a steep hill, you knock your horses up; but if you walk up a steep hill, and take advantage of the ground being with the collar—I am only talking of wheels, and not of cavalry horses,—in that way you can save your horses, so that you can do your work, and especially halting where there is grass, instead of halting where there is no grass."

Q. 18,673. "The cavalry must give the pace, but cavalry can often crown hills first, and they might let the artillery come up slowly, whereas, we marched absolutely dressing with the cavalry the whole way. It is a question of treating the wheels on the march according to the nature of the ground."

\* R.C. Evid., Q. 19,820, p. 425.

† Idem, Q. 6908-9, p. 296.

‡ R.C. Appendix No. 23, p. 170.

°° In the "Report of the Royal Commission on the War," p. 47, para. 82, it is stated "It was generally agreed that the Royal Artillery knew how to take great care of their horses. . . ."

which, as we have seen earlier (p. 117), is due to an admirable regimental system over a century old; positive proof, if any were required, that this information can only be gained during peace and enforced by discipline.\*

In summing up the question of horsemastership we have seen that the mounted Infantry failed owing to their ignorance of the work; the Cavalry through the effects of a vicious system, abolished but not obliterated when war broke out, which placed the management of its horses in peace in the hands of the Colonel and Adjutant and in war in the hands of the Squadron Officers.

We have attempted nothing more than to deal with the question of Horsemastership in War as a whole, the details can unfortunately find no place in these pages. A simple and safe method of picketing is still required. The necessity for blankets has yet to be decided, and their possible advantage placed against their weight, especially when wet and muddy. The transport they occupy would be far better devoted to the carriage of hay. As to the extra comfort they afford, a third of them are under the horses feet at night, and there is no practical method on Service of keeping them in their place. As a means of spreading contagious skin disease they are unrivalled. Moreover, the well-fed horse, unclipped on neck, shoulders, back, loins and quarters does not need one. Colonel Thorneycroft, in a Paper laid before the Royal

\* It must not be supposed that the organisation of the Artillery has saved it from making huge blunders. It is as conservative as every other branch of the Army; the spirit of what was good enough for one's grandfather is not the spirit of progress. Great Britain woke up one morning to find that its Artillery was obsolete, and of no more use against modern Artillery than a pop-gun. The Artillery had held on to muzzle-loading guns when every single nation in Europe was armed with a breech-loader. It held on to shaft-draught as being essential for guns when all the Artillery of the world used pole-draught. It used collars and enormously heavy harness when other nations were employing breast-harness, and the lightest material in construction. It did not change one of the above features on its own initiative, but only under the pressure of dire necessity. It has, indeed, been said that until recent years harness and fat horses formed a far more important part of the Artillery creed than guns. Certain it is they went to South Africa with ammunition which was defective in range, and had to wait for months, until a fuse could be manufactured at home, before they could compete on equal terms with the Republican Artillery. [See Report Royal Commission, p. 91. On p. 92 the Commission says that the War Office were unable to devise a good quick-firing gun, but during the War purchased from German makers "real" quick-firing guns, and used them as a model.] These facts are mentioned to indicate that a life devoted to ceremonial and playing at fighting will ruin any fabric, and that medical and veterinary officers can never feel too profoundly grateful that their training does not consist in "playing at doctoring." The stern reality "keeps their hands in," and daily trains their judgment; this is the reason why, if given a proper organisation, no excuses for failure on Service should be admitted. The fate of the Departments of the Army lies largely in the hands of those who are demonstrably unable to look after their organisation and technical requirements, or to keep abreast of modern discovery and invention.



Commission, Appendix 52, p.354, says that he does not consider it advisable to rug M.I. ponies, it renders them liable to chill. Nor does he advise clipping unless the coat is in such a condition that it cannot be cleaned.

I entirely agree with Colonel Haig in the remarks he makes, referred to at p.237, on the pampering of troop horses. It is not the weather which kills horses, but starvation and overwork. No troop horse in health should ever know the feel of a blanket; he is born clothed, and his early life spent in the open, exposed to the elements without cover, did not kill him nor could it. If a blanket is essential, why not a hood? If there is one part on which a horse hates rain it is his face. Bandages will next be required?

Reams of official correspondence exist on the question of blankets, but no one in authority has taken up an infinitely more important and practical question—that of nosebags. The present pattern of nosebag, used in civil and military life, is a disgrace to our inventive genius, it is merely a vehicle for wasting a quarter of the food. The army nosebag is still worse, as it has been sacrificed to appearance. It is infinitely too small, of the wrong shape, fragile where strength is required, and in consequence lasts but a short time. We complain of short rations, but never of the waste-producing, leaky, dirty contrivance in which they are placed for consumption. It would be a sound measure of economy for the Secretary of State to offer a prize of £1000 for a practical method of feeding horses without a manger, and without waste. Think of the trouble and expense of carrying forage immense distances, to be wasted on the ground when it has reached the horses for which it is intended! The questions of nosebags and picketing are two of the three most pressing necessities for horses in war, compared with which blankets are a trifle and a luxury.

#### ACCLIMATISATION.

When men and horses are sent abroad to fight there is no time to wait until they are acclimatised. Nevertheless, in the case of the horses sent to South Africa, more than that of the men, acclimatisation was an important physiological process, for the animals landed either with a winter coat in an African midsummer, or a summer coat in winter; apart from all other considerations a physiological re-arrangement on this account had to be made. It was notorious that many of the horses landed, even before Christmas, refused to change their coats for several weeks. The mutation of the coat as a seasonal adjustment is not everything; the digestive functions of the horse are notoriously delicate, in spite of a certain ignorant saying to the contrary. A sudden change of food, corn or fodder, is a most disturbing element to his interior. A new grain suddenly introduced cannot be digested, and when horses refuse it and prefer starvation, they

are exhibiting a protective instinct. A change in grain may lead to laminitis and other troubles due to causes we need not here consider, while a change in herbage may be followed by considerable gastrointestinal disorders. Even the horse of South Africa will not tolerate a sudden change of pasture, as we have seen at p.202, and only the "karoo" pony can utilize the bush which is so irritating to a new comer. A change in water is probably more insidious in its effects. A good deal of the water in parts of South Africa is brackish and that from wells frequently very hard; both storage and river water suffers under the effects of being churned up in the process of watering, by which a large amount of mud in suspension is swallowed. To animals which have been previously consuming water of unimpeachable purity, such changes as these must create not only intestinal irritation, but alterations in the physiological process of urine-secretion.

Life in the open is the natural existence for all domesticated animals, but circumstances not connected with health, as many think, demand stabling for comfort. The stabled and pampered troop horse\* found himself in South Africa suddenly exposed to scorching sun by day and drenching dews by night. His long English winter coat was burned brown or came away in patches, and was clogged with sweat and dirt. His rest on ship-board had robbed him of such muscular fitness as he possessed, and he sweated and groaned under his 20-stone load. We made no concessions to him on account of these matters, though he was a stranger in the land. He was turned out to graze but did not know the meaning of it,† and abused his freedom by stampeding. Prevented from stampeding by knee-haltering, applied by equally ignorant men, his leg was cut or the limb otherwise damaged. He shivered and shrunk up in the rain, and the absence of generous feeding, hay and water, soon left him a shadow of his former self.

A difference of opinion exists as to the length of time it takes for an animal to acclimatise in South Africa. By some two months was considered sufficient,\*\* but it may be safely stated that in the case of the horse a year is not too long a time, until, as Colonel Blenkinsop originally pointed out, the animal has learned to change his coat correctly. Men are very much inclined to measure horses by themselves; a horse is a far more delicate animal, and much more readily upset and killed. Assuming a year to be none too long for the important changes indicated above to occur, we may say that very few horses lived long enough in the war to be physiologically acclimatised. Among the causes,

\* Haig ("R.C. Evid.", p. 404, Vol. ii.) says: "Hitherto there has been too much pampering in peace time."

† See pp.14, 29.

\*\* General Butler believed that at least two months were required to get used to the conditions of water, food, and altitude, and that four to six months were preferable. See Q. 5304, "C. of E. Rem. Evid.", p.174.

then, contributing to inefficiency was this one of want of acclimatisation.

The question, however, is whether it would not be possible during peace to render animals less susceptible of exposure and hardship when taking the Field? We firmly believe this to be the case, and would indicate as one measure the system of feeding on a mixture of grain rather than exclusively on one, as not only being more economical during peace, but preparing the way for the varieties of grain rations met with in war.

The softening of fibre resulting from pampering should be eradicated. No troop horse should wear a blanket so long as he is in health. No troop horse should be clipped all over. Sufficient hair may be taken off the belly, brisket, thighs and arms to counteract sweating and facilitate grooming, and yet without necessitating the use of blankets. There is no occasion for troop horses to resemble in appearance the artificial product of our hunting and racing stables. He is neither hunter nor race-horse, or he would never have found his way into the ranks. He should be the natural product of common-sense management, and not the residue of an artificial and unnatural life. His stable should only mean protection from rain and wind, such as he endeavours to provide for himself when living freely in the open; here he gets under a hedge. There should be no windows capable of shutting, no doors capable of closing, no light which can be cut out, no reeking putrifying "Continental system" of bedding to soften and destroy the horn of the feet, and by fermentation to produce sufficient heat to raise sensibly the temperature of the building. There should be but one or two degrees difference in temperature between the air of the troop-stable and the outside air, bearing in mind that the sole object of the stable is not to provide an oven for the animals to live in, but shelter from wind and rain. From this it must not be supposed that either wind or rain kill well-fed horses living in the open; it has no effect excepting that of making them look utterly miserable. If wet weather continues animals lose condition from the utter inability of feeding them properly, the material is blown away or trampled in the mud. Stabling is therefore economical, it is also sanitary, for bodies of horses cannot be kept standing constantly on the same ground, but it is not an essential to well-being, and the temptation to convert it into a house should be resisted in every way. Common-sense must be invoked in order to avoid the temperature feelings of animals born permanently clothed, being confused with those of the animal born naked.

We do not ask that Army horses should live in time of peace under conditions resembling a campaign, but that the system of protection should be Spartan in its simplicity, and every endeavour made to render their buildings as much as possible like the open air, without its drawbacks. The feeding in peace time is defective because, as we have seen, we feed on one kind of grain only; better feeding would be obtained for the money now spent by

using a mixture of grains, the advantage of which to the troop horse has been previously referred to.

A remarkable degree of body-delicacy results from pampering: perhaps it receives its highest expression in the dog. The moment man brings animals under his care he is inclined to fashion their lives on that of his own, which, in the main, is a perpetual striving after comfort.\*

The effect of sudden change of altitude on animals is not known. Probably, for altitudes up to 5000 feet, the actual reduction in atmospheric pressure is rapidly compensated. Altitude, it seems to us, is less a source of trouble *per se* than its concomitants. The lowered temperature, for instance, may be more important than the reduced pressure, but doubtless the different vegetation found at various levels is a far more serious cause of difficulty to the herbivora than either the temperature or pressure. At very high elevations there is a difficulty in breathing owing to a reduction in the oxygen content, but no such altitudes as these were met with during the war.

#### FARRIERS AND SHOEING.

Had South Africa been a country where the wear and tear of shoes was considerable, nothing would have prevented an entire collapse of the military arrangements within three months from the date of taking the Field. The fates treated us kindly in this matter; there were no metalled roads, there was plenty of soft going, a veldt which polished the shoes like silver, and no serious rain until Bloemfontein was in sight. It is true there is a good deal of rocky ground in places, but it is short lived and mere outcrops; stones and boulders abounded almost everywhere, but these do not wear shoes out, though they tear them off, and may bring tired horses down. The fact is that shoes which last barely a month at home during the idleness of winter, lasted three months in South Africa, and often remained on until they dropped off.

The explanation of this latter fact was the paucity of the staff of farriers with the Army, or more correctly, the bad system under which this staff was employed. Shoeing in our Army has been carried out by a regimental system as long as mounted troops have existed. Over a hundred years ago the farrier was not only the shoer of horses but the veterinary practitioner. He acted as such so badly that in 1796 it was determined to replace him by a properly trained man, and from that day onwards he has been the technical assistant to the latter, and the shoer of horses. He is a regimental man, holding first an appointment as shoeing-smith, and if promoted receives rank. He has nothing to do with horses outside those of his own regiment, nor can he be employed to do anything for an animal the property of the public not belong-

\* In connection with this the remarks on p. 239, dealing with blankets, may be consulted.

ing to his own unit without the approval of his Commanding Officer.

When mobilization occurred every regiment of Cavalry had three Sergeant-Farriers, and eighteen Shoeing-smiths. Every Battery one Sergeant-Farrier and three or four Shoeing-smiths, dependant upon whether R.H.A. or R.A. These men were not only craftsmen but soldiers; they took their place in the ranks as such, and carried out their technical duties afterwards. In the Artillery and Army Service Corps they are not only shoers of horses and assistants to the Veterinary officer, but also Carriage-smiths. Each Farrier and Shoeing-smith, therefore, performs the duties of two men, soldiers in the Field and tradesmen in bivouac. Each should have, as fortunately most of them possess, an iron constitution, for he has twice as much work to perform as any other man in the British Army, and he has attempted to carry out this double function with a loyalty and devotion beyond praise.

It is fortunate, however, that the wear of shoes in South Africa was light, or it would have been impossible for the staff, as organised, to have carried out the shoeing. No man can be in the presence of the enemy, or marching, all day and shoeing all night. This is what we mean in the opening statement of this section—that had the Army been dependent upon shoeing for its movements, a breakdown would have occurred in less than three months.\*

The proportion of Farriers and Shoeing-Smiths to horses during peace is in excess of requirements; this is due to the fact that these men are counted as soldiers in the ranks. If their numbers in the ranks were reduced, the State would have to sanction others to take their place. From a regimental point of view no reduction is therefore possible. In war the numbers are sufficient for the purpose for which these men are engaged, provided that they are not otherwise employed. It can be seen from what has been stated above that the Farriery Staff is overworked, and that the duties assigned to it are always largely in excess of that of the other members of the rank and file. In addition to being soldiers and farriers, they are, as we have seen, charged with a third function, *i.e.*, in subordinate charge of the sick horses of their units under the veterinary officer.

This brings to light one of the many difficulties of their position; they have to serve two masters, the battery or squadron Commander, and the veterinary officer attached to the unit. It is astonishing the loyalty they show to both, even when aware of the differences of opinion which at times arise between the unit Commander and the veterinary officer in connection with the care of horses.

Another and distinct group of artificers concerned in the horse-shoeing question, are the hastily

trained "cold shoers" of units; these are men who have been induced by a premium to qualify to nail on a shoe which they are practically unable to fit. Their number per unit is a variable quantity, and depends generally upon the interest taken in their training by the unit Commander. There may be many or few. They leave the forge after a few weeks' instruction, and their chief use is to replace shoes in the field, especially in Cavalry when the squadron is working in detached portions. These men have their marked limitations, but are useful under pressure of work. They are never employed when better qualified assistance is at hand, and once they have left the forge their subsequent connection with it is purely nominal.

When an army passes from a peace to a war footing the number of animals with units is increased, and in addition units are created which have no peace representation, or but little. For these no farriery service exists. The account given in these pages of the events of the war will best illustrate the case. A transport was created consisting of thousands of mules: for the shoeing of these animals only the small number of men with the transport on a peace footing were available. Regiments of Mounted Infantry were created, and thousands of animals brought into the service; for the shoeing of these not a single man existed, excepting the few trained in peace as cold shoers of regimental Infantry-transport. Scores of irregular regiments were created with hardly a trained farrier amongst the whole number, and to these may be added remounts by tens of thousands, for the shoeing of which no provision existed. We have referred at p. 21 to the difficulties existing at the outset of the campaign in providing farriers for irregular regiments. That the local knowledge of some of the Commanders of these enabled them to know where to recruit farriers is undoubted, but that this never met the whole trouble is equally certain. Fortunately the colonial animal ridden by these men rarely requires shoeing behind, which reduced the amount of work by half. At the early part of the war some army farriers were lent to the first regiments raised, but this was only a part of the general policy of robbing Peter to pay Paul, for these men were required with their regiments. The Colonial Commanders were exasperated by being informed that they must make their own arrangements for shoeing, as if the material, possessing all the needful qualifications, were always on the spot and only needed to be embodied.

The losses among Farriers and Shoeing-Smiths in the Field are difficult to obtain separately, as they are mixed up with those of the rank and file, but early in the war a Cavalry Brigade lost in three months nearly 33% of its shoeing staff, and two Cavalry Regiments and a battery of Horse Artillery lost over 43% in six months. The total number of men in these two groups rendered inefficient was 39, of which:

2 Died,	10 Sick,	4 Wounded,
4 Captured,	19 Invalided.	

\* Colonel Haig, the Adjutant-General of the Cavalry Division, in his evidence before the Royal Commission, Q. 19,299, p. 403, stated that many horses were left unshod from the day they embarked, and that time and men were lacking to shoe remounts before marching.

The general wastage of men per annum during war is calculated at 60% for Infantry, 50% for Cavalry, and 40% for Artillery.\* The groups of Farriers, etc., quoted above, are too small to enable the facts of the general loss to be stated in positively definite terms, but there can be no shadow of doubt that the wear and tear amongst this class of soldier is higher than in any other branch, and the reasons for this have already been stated.

The remedy is simple. Farriers and Shoeing-Smiths should be kept wholly for technical duties, and should not be included among the fighting numbers. Their place should be with the transport, in order to be kept as fresh as possible for the work which awaits them in the next bivouac. With such a scheme fewer men could do the work. If a man shoes an average of four horses a day with machine made shoes requiring little alteration, he may be regarded as having earned his pay and keep. On such a basis six men could easily keep a regiment of Cavalry shod.

The staff of Farriers and others maintained during peace and war has no definite basis; in Cavalry it averages 28 horses per man per month in peace, and 26 in war. In the Artillery the proportion is reversed; in Horse Artillery, during peace, 27 horses per man per month, and during war 46; Field Artillery 22 during peace, and 36 during war. The proposal above made admits of a man shoeing from 90 to 120 horses a month, but for safety it is best to take the lower figure. If the squadron be taken at 150 strong in peace and 160 strong in war, two men should be able to keep these horses shod. At present, for this purpose the staff is five in peace, and seven in war. The proportion of Farriers taken into the Field must always provide against accident, disease and pressure of work. A shoeing staff of three men per squadron should leave a margin to meet all difficulties (see p. 243), provided they are taken care of instead of being worn out by overwork and exposure. No other soldier in the army has, on returning from the Field, to take off his coat, after a long tiring day, and begin the job for which he has been trained, while his comrades are resting and sleeping. The scheme of reducing the shoeing staff and putting it with the transport is economically sound.†

There ought to be a Corps of Farriers administered by the Army Ordnance Department, in the same way that it administers the Corps of Armourers. These men should be for shoeing only,

\* See R.C. Evid., Q, 4453.

† Colonel The Marquis of Tullibardine stated before the Royal Commission that he considered the lives of the Farriers of the Scottish Horse to be too valuable to place these men in the fighting line, so that as far as possible he kept them out of it. He pooled the whole of his shoeing staff, and under the Farrier Major these men carried out the shoeing not by squadrons, but regimentally. In this way the work was equally divided. It was no question of whether a horse belonged to the man's squadron or not. This excellent practice might have been adopted by other regiments, and the equitable distribution of work and saving of Farriers assured.

and not mixed up with the dressing and treatment of the sick. They should be posted to regiments for duty, but not to belong to it. They should be under the orders of the Squadron Commander, for he alone is responsible for his horses. For emergency work in the Field the regimental cold shoer should continue to be trained as at present.

Another point that needs consideration is the formation of a Reserve of Farriers. There is practically no such thing in existence. One should be formed, not only to meet the wear and tear of service in the Field, but to provide for those units which only exist or are created during war.\*

With the Cavalry Division under Lord Roberts on the Modder River there were not less than 200 Farriers and Shoeing-smiths, yet not one of these men could be detailed to shoe M.I., Transport or Remount animals. These had to go without shoeing. Such a state of affairs could not continue indefinitely; the engagement of civil farriers was at first hinted, and by 11th April, 1900, a reality. A few men were at first engaged, but they did little towards lessening the mass of neglect in shoeing. They were engaged at a rate of pay which would have turned the head of an infantry subaltern. They received at first 10/-, and later 12/- a day pay with rations and quarters, and were engaged for three months. They were of all classes—Jews and Gentiles, Poles and Dutchmen; where they all came from was remarkable, and though there was little means of testing them before engagement, there were very few downright failures among them, though there were very many weak vessels. At first these men were kept in standing camp, later on many of them volunteered to accompany the troops, and remained for months in the Field. Some hundreds of civil Farriers were thus employed from time to time; by June, 1901, there were 100 working for Remounts alone,† and by the 31st May, 1902, the number of civil Farriers with the Remount Department had reached 175.‡ The numbers with hospitals and columns are not known, but certainly not less than another 200. The increase in numbers followed as the strength of the army in horses was increased, and as the military Farrier and Shoeing-Smith gradually disappeared.

Anything more expensive than this system it would be hard to imagine,‖ furthermore, it filled the Army Farriers with discontent to see a civilian earning a rate of wage in one day that he could barely get in a week.

\* On one occasion it took 74 telegrams to obtain the services of a Farrier for a Mounted Infantry Regiment, and there were scores of cases where no record of correspondence is available.

† There were in addition, at this time, 35 Army Farriers and 60 Indian Farriers with this Department.

‡ On the 31st May, 1902, there were, besides the civilians mentioned above, 60 Army Farriers and Shoeing-smiths, and 104 Indian Shoeing-smiths.

‖ At one Remount Depot the Commanding Officer paid the civil Farriers by piece-work as being economical. It resulted in these men netting £42 a month a head!

A partial remedy for this state of affairs was provided by the War Office sending out "specially enlisted" Farriers from home. These men wore Artillery uniform and were at first claimed by this arm; after great delay they were distributed. They soon found out that the civilian of the country was receiving 10/- or 12/- a day, and so started by being discontented. Their pay was 2/9 a day with a bounty, and they were engaged for a year. At the end of January, 1901, there were 45 of these men at Cape Town, time expired, awaiting passage home, and not one could be employed even on temporary duty. The fault lay with the terms of their contract, which should have been "for the campaign," and not "for a year."

The shoeing of the horses in South Africa finally resolved itself into shoeing by the Remount Department. Every animal, during the last eighteen months of the war, was shod all round by Remounts before issue, and this shoeing largely covered the period of the animal's utility until returned to Remounts for rest and repair. Towards the end of the war the Remount Department shod at the rate of 35,000 animals per month.\*

From what has been stated it is clear that the Farriery system of the army broke down immediately it was tested under active service conditions, and every officer of sufficient experience in the Veterinary Service knew this to be inevitable. Comments on Farriery organisation have appeared in nearly every veterinary report on a campaign, but no notice was taken of them, nor indeed, in spite of the collapse in South Africa, have any steps been taken to remedy the state of affairs above described.† A Farriery organisation on a regimental basis is bound to fail unless a very large reserve is obtainable on the outbreak of hostilities.

The material for shoeing was generally ample in quantity though not in quality. It is true there were innumerable complaints of a shortage or absence of shoes when columns came into the line to refit, but this was generally due to the delay in transit or the uncertainty in the movements of columns. The stores including shoes went to one place, the column to another. The complaints of ill-assorted sizes were more reasonable. Large horse shoes were sent for small horses, and even the largest size of draught hind shoes found its way into Ordnance Depots, having previously occupied valuable space in vessels and railway trucks, to be left finally on the hands of the Ordnance Department.

\* These figures are important. The total shoeing staff amounted to 389 men, and without making allowance for any of these being sick, the average number of horses shod per month amounted to 103 per head.

Our estimate on p. 242, of three men per squadron in the Field for the shoeing of 160 horses a month, is therefore, liberal, though not in excess of requirements, as many animals will require shoeing oftener than once a month.

† The Royal Commission did not enquire into the breakdown of the Farrier organization, though in Q. 1783 the matter is referred to. This could never have occurred had the "horse" interest been represented on the Commission.

No one wanted anything but small shoes. Even the small size of English shoes was unnecessarily heavy, so shoes came from India. Before the war broke out the Ordnance Authorities at Cape Town had been advised by the Veterinary Service that the shoe which was most suitable for the country was that known as the Egyptian pattern. This was a shoe evolved by the Veterinary Authorities in Egypt as the result of experience; it was light but gave good cover, and so made as to assist a tired horse, or one with defective action. These were not stocked as suggested, nor were any obtainable until long after the war started. The shoes generally supplied were machine made, but the stock had run so low that the Government bought shoes anywhere and everywhere, many of these were hand made and disgraceful. In addition, they were all without clips, and clips cannot be drawn on service, as no fires are carried.

This is what the Director-General of Ordnance at the War Office said to the Commander-in-Chief on the matter of the Reserve of Horse Shoes, a few weeks after the war broke out:

"Our reserve of general shoes was utterly inadequate to meet the demand. We have had to buy in the market whatever we could get. As an example, we had an authorised reserve of 52,000 sets of horse shoes, and no mule shoes. I have to send 35,000 sets of horse shoes and 40,000 sets of mule shoes to Africa monthly to keep the animals shod. I have to go to Germany and Sweden for horse shoes, and to the United States for mule shoes."—"R.C. Report, App: E," p. 279.

We learn in this statement the astounding fact that no reserve of mule shoes was maintained, though every successive Government for years past had known that on mobilisation for service abroad mule transport would be employed. It would be interesting to know what became of the 40,000 sets of mule shoes sent monthly to South Africa. They were certainly not put on the feet, for the animals worked without shoes, as there was no one to shoe them. The wonder becomes all the greater when we learn from the R.C. Evid., Q. 1603, that the issue of horse shoes later on grew to 100,000 sets and of mule shoes to 70,000 sets *monthly*.<sup>o</sup>

A large proportion of the nails were bad. Their shape invited them to break at the neck, and that the material also was bad was shown by the fact that frequently all the nails would break and the shoes drop off. No doubt the stock of nails, as well as of shoes, was insufficient to meet demands, and nails of all patterns and makes were purchased. It was amongst these that the failures occurred, for the regulation nail was a good one.

The condition of feet which had been carrying shoes for weeks without being removed is easy to imagine. The labour involved in their reduction to normal length was considerable, and rasps were not plentiful. An ingenious horn cutting pincers was introduced by Major Blenkinsop, which rapidly removed the over growth, and left a surface readily

\* The whole track of the Army was mapped out by dead horses, cast shoes, wasted oats, and rifle ammunition.

levelled by the rasp. Though a labour-saving machine it was something new, and was disliked by the very men who should have welcomed its appearance. It is to be hoped that it will take the important place it deserves in our next campaign, for the supply of new rasps can never be sufficient, and the saving of time in shoeing is an all-important matter.

The injuries resulting from shoeing and neglect in shoeing may be briefly dealt with.

The condition of the feet of animals arriving at hospital was almost beyond belief. They were overgrown, deformed, held the broken shanks of nails and portions of shoes, and contained in any cleft or space stones and mud, baked to a clay by the heat of the foot and the ground. This concrete-like mass required considerable effort to dislodge. If a portion of shoe was found on the foot it was embedded into the seat of corn. Suppurative diseases of the feet were in consequence appallingly common; soles were under-run, and fistulae of the coronet became a large and serious class of surgical cases, the number of which is beyond belief.

Never again, let us hope, will an army have so large a number of quitters to deal with. Not only did they arise from neglect in shoeing and untended injuries caused by nails, but also from damage to the coronets inflicted when horses are in mobs, or crowded together. We can hardly think that any surgical trouble in our hospitals gave such bad results in treatment as the quitter cases, due to the exceptional difficulties these always present, and the impossibility, with untrained assistants, of daily dressing large numbers. The introduction of "stocks" into hospitals was helpful in this and similar surgical cases, but it can never be said that our quitter work was satisfactory.

Something perhaps should be said of cold shoeing in the Field, for the reason that its advantages are not even now fully accepted. It is a makeshift system, but absolutely essential in war. It offers no serious difficulties with the lighter class of shoe, but is impossible with the heavy shoes. A large mass of iron cannot be dealt with without fire and anvil, and rightly neither exist. Hot shoeing in the Field is an absurdity; where is the needful fuel to be carried, or even obtained; further, the forge is always the first thing dropped by the way when horses run short; this is invariable.

The principle underlying cold shoeing is that the size of shoe nearest that of the foot must be selected. Small alterations of increase or decrease of width are possible with light shoes, and it even ought not to be beyond the range of mechanical skill to devise a machine for making alterations in width of the heavier class of shoe, but more than that must not be expected. So long as the rim of iron enables a horse to take his place in the ranks we must be content with rough fitting. In spite of the fact that one-and-a-half millions of horse-shoes

were sent to South Africa during the war, it cannot be said that "cold shoeing" was either properly tested or proved successful, for the reason that the Farriery system on which it depended broke down, and the feet had to take care of themselves. The loss which resulted from this neglect is incalculable.

The carriage of horse-shoes in the Field is divided between the horse and the transport waggons. As every ounce of unnecessary weight will, in future, have to be removed from the horse's back, it is clear that the shoe case with fore and hind shoe at present hung on the saddle will have to disappear. A few shoes carried by the various "cold shoers" are sufficient to meet urgent demands in the Field, all others will have to be carried on wheels, and accompany the transport.

To provide an efficient Farriery service, the first essential is that the regimental basis must be abolished and a Corps of Farriers created; the shoeing must be Army and not regimental. The men must primarily be tradesmen and not fighting soldiers; they must be taken care of by moving with the transport, for without doubt they are the most valuable artificers who take the Field.

A Corps of Farriers would enable a General to send tradesmen wherever they are required; it would provide for the troops in the Field, for emergency corps, Remount depots and veterinary hospitals. It should be a single organisation, under central control so far as the distribution of the men is concerned, though, for discipline, under the officer commanding the unit to which the men are attached. The whole time of the Farriery Service during peace or war must be devoted to the care and attention of the horses' feet. No parades, drills, or military operations after the indispensable primary training has been completed. Emergency shoeing in the fighting line must be carried out by the regimental cold shoers, trained as at present, and in receipt of a special rate of pay to encourage men to qualify. The part hitherto played by Farriers of Regiments as veterinary assistants to be taken over by the personnel of the Army Veterinary Corps.

The Royal Commission on the War mentioned the Farriery question. In Q. 1783 the following was asked the Director-General of Ordnance: "You may have seen the accusation that there were practically no farriers in South Africa. Which department would deal with that?—A. The supply of farriers would be in the Adjutant-General's department."

Unfortunately, the matter subsequently appears to have been lost sight of, for no evidence was given on the point.



### SORE BACKS.

Sore backs appear inseparable from mounted service, they have existed as long as the horse has been used in war. It was reasonable, however, to suppose that, as knowledge advanced, a reduction in this class of injury should have been possible, and that during the centuries a standing army has existed, sufficient experience would have been gained to enable us to pronounce definitely on any given type of saddle as good, and adopt it, or any type as bad, and avoid it.

If we wish to gain a true insight into the sore back question we must go back to the forty years of peace succeeding Waterloo, during which period all the lessons of war appear to have been forgotten. At the end of this time it had become established as a cardinal principle that sore backs arose from the careless manner in which the man saddled or rode his horse, and the rider was accordingly punished. The necessary corollary of such injustice was the concealment of injury. The Cavalry in the Crimean Campaign suffered severely from this class of wound, but the wholesale destruction of the mounted forces by starvation withdrew attention from the sore-back trials, and after the war—as after all wars with us—the inconvenient question was never taken up, and in a few short years the matter was apparently forgotten.

The Zulu War and, immediately after, the Campaign in Egypt, once more brought the matter to the front; for no sooner were mounted troops compelled to act under service conditions than the old bane of Cavalry reappeared. It is fortunate that at this time—the early eighties—the Cavalry had as their Inspector both a soldier and a Veterinary Surgeon. The late General Sir F. FitzWygram established a crusade against the then pattern of saddle, studied the question of sore backs, showed that the saddle was more often to blame than the man, and was instrumental in introducing saddles with iron instead of wooden arches into the service. Above all, he provoked an interest in a subject about which, strange to say, extraordinary ignorance existed. His official position insured that the question received attention, and he broke the first ground in this all-important matter. Reforms cannot be produced in a day, and it is doubtful whether among the older Officers of Cavalry at the time any enthusiasm in the subject existed.

It was evident that the saddle could not be studied apart from the horse, and there was still a great deal connected with the latter which required elucidation. Both the theory and practice of saddle fitting was necessary, and this could only be correctly arrived at by a knowledge of anatomy and physiology. The Veterinary service took the matter in hand, and one of its number, after some years of work, produced a *Manual of Saddles and Sore Backs*, in which, for the first time, the grammar of the entire question was laid down. This Manual aimed at giving exactitude to what was previously

conjecture and guess work; it swept away some of the then existing fetishes, and reduced the question of saddle fitting to science and common sense. It promised no more than it was capable of demonstrating could be achieved, and the success which attended the application of its principles and practice secured the attention of all interested in the welfare of the horses. But enthusiasts in the question were not numerous. The whole matter appeared, like a revealed trick, so absurdly simple, that few doubted their ability to put it into practice when the time arrived. The sermon was over and over again preached that each case of sore back was a problem in itself, and that nothing but long practice could secure the skill necessary in dealing with the many sources of injury to which this part is exposed. Nevertheless, good seed was sown, for the general trend of events was in the right direction; the Cavalry had been taught the make and shape of a horse's back, the physiological conditions under which the back carried weight placed on an unyielding machine, and the causes of injury, with a definiteness and exactitude unknown to the previous generation. Ten years later, which takes us up to the middle of the nineties, it is fair to assume the majority of Cavalry Officers knew something of this all-important matter, though the opportunities for practice were confined almost entirely to the manoeuvre season.

Side by side with these changes there was an ever-increasing desire for alteration in equipment; the type of metal arch underwent many changes, some unimportant, some necessary in consequence of proved defects. Other changes were radical and opposed to experience. One of the worst was introduced shortly before war broke out; the burden of this story is to show that it was responsible for a very great deal of the trouble which subsequently occurred.

It must always be borne in mind that no test of equipment in peace is ever carried out under conditions approaching those of active service, so that the root of the matter is rarely arrived at.\* Nor are the tests imposed such as might be expected when important changes in equipment are under consideration. Take the case of a change in the type of saddle. The test usually employed is to issue half a dozen or so to a few selected regiments and order a report to be furnished by a given date, probably far too short a period for any real test to be employed. The saddles arrive, and those responsible for carrying out the observations are, perhaps, not even taken into the confidence of the authorities as to the objects aimed at. The usual conflicting reports go in from the various regiments, some destructive, some constructive, and a man sitting in an office miles away has finally to decide the matter on the data before him. Is it any wonder

\* A good example of this was the canvas bandolier for carrying ammunition in the Cavalry, and the pouches in the Infantry, which in each case allowed the ammunition to fall out as the man lay on the ground, and so kept the enemy well supplied.

under these circumstances that blunders arise? \* No question of horse equipment should be decided without an experiment on a large scale, carried out under conditions as nearly approaching those of active service as is possible. Confining ourselves entirely to horse equipment, no saddle, no shoe, nosebag or picketing gear should be adopted that has not been used on a whole regiment which has marched with service weight at least 400, and preferably, 600 miles. Day by day the test should become more rigid and exacting, and in the case of saddles, the animals should even, at one period, be placed on reduced rations, in order that the effect of loss of condition may be studied. In no other way than the above is it possible to get at the root of matters; anything based on what may be termed barrack square tests is worthless. A type of saddle or shoe which comes successfully through such a test as we have suggested is not likely to have much wrong with it. All the weak points having been revealed, the matter is then in a condition for vigorous handling. Of course, the objection against a proper practical test centres around cost, but is it cheaper to order imperfectly tested equipment, than pay the necessary price for rigid inquiry? The curious will be interested to study the patterns and changes in saddlery which have taken place within the last thirty years; such may be culled from the "List of Changes in War Material," and other official sources.

We are now in a better position to understand the condition of the saddle question before the war. In about twenty years we had passed from wooden arch saddles with hair panels, to saddles with a metal arch and hair panels. The vicissitudes of the metal arch saddle we have previously hinted at. A "Saddlery Committee" sat for years, and evolved type after type. Of wrong pattern and material to start with, these arches proved prolific sources of in-

\* Following the custom adopted in this history of quoting authorities or giving examples, we will take one or two connected with the question under notice.

When the iron arch saddles were introduced after preliminary trial and favourably reported upon, it was found, after the whole army had been equipped with them, that the front arch was so weak, that the saddle came down on the withers. As a matter of fact the arch could be opened or closed by hand! A strengthening plate was put in. This was applied to the thousands of saddles in use, and was found ineffective. Steel arches were then tried, and finally a steel angle iron arch was adopted. We submit that the weakness of a flat iron arch could have been discovered in the preliminary experiments had these been of a searching character.

Several years later, to take another example, for some reason no one understood, the seat of the saddle was split in the centre from end to end. It is assumed that the split was well reported upon. When generally adopted it was found that the saddle blanket worked up through it and galled the man, the result being that all the seats had to be closed. It seems very obvious that this fault should have been capable of being found out before saddle seats were ruined by splitting, and heavy expense incurred in restoring them.

Other examples might be quoted, but the above suffice to support the argument we have advanced for searching and extensive tests of new equipment before adoption.

jury; modified and strengthened as years rolled by, a type was in course of years arrived at capable of withstanding the enormous strain imposed on a soldier's saddle. The parallel bars on which these arches rest were then attacked, but not until after years of representation from the Veterinary Service that their great length impeded the horse's movements by pressing on the blade bones. In the course of these alterations the old hair panel was taken away and strips of felt employed together with a small blanket placed under the saddle, to take the place of the hair panels. There were other alterations projected, such as a self-adjusting side-bar, but this matter we need not here enter into, as it never crystallised. *The war caught us after all hair panels for army saddles had been withdrawn, and nothing but a thin felt panel and indifferent blanket substituted.*

Before proceeding further we must look at the hair panel. It was an elastic bag secured to the parallel side bars, and was capable of taking the impression of a horse's back almost as completely as if made in wax. The hair shifted sufficiently in the panel to adjust the distribution of weight, while its elastic motion between the saddle and the back was an obvious advantage. It had its drawbacks; in course of time it became lumpy from the penetration of sweat, it became compressed and thin, and the white flannel cover necessitated pipe-clay in order to improve its appearance. Every application of wet pipe-clay helped to render the hair within lumpy, and the beating together of the panels to remove the surplus material destroyed the exact impression of the horse's shape which the panel had received, and moreover, bunched the hair into definite parts of the panel, instead of leaving it equably distributed. But the panel possessed advantages of the most pronounced character; extra material could be introduced into it in a few minutes, so that the condition a horse was losing in the muscles of the back could be artificially replaced in the panel, which thus ensured the saddle being kept at its proper height above the vertebrae; further, the panel could be "chambered" over a sore or weak point, and the pressure removed. These were advantages of enormous importance, and those responsible for stripping the saddles of their hair panels and replacing them by a piece of felt—which became as hard as a board through sweat—and a thin folded blanket, could never have appreciated their advantages or gauged the horse's requirements. A saddle tree with only a blanket and felt cloth (numnah) beneath it requires far more careful adjustment than one with hair panels. It is quite true that the blanket possesses some advantages denied the hair panel, but *what was required on a campaign were both hair panels and a blanket*, the function of the latter being to replace back waste by different methods of folding.

It must not be thought that the question can be disposed of in the simple manner the last statement appears to indicate. It is not only a large subject, but confused by infinite detail, due to the

fact that no two horse's backs are exactly alike. All that has here been attempted is to give a brief history of the matter, and so enable us to understand the condition of affairs when the Campaign opened.

The whole of our mounted troops took the Field with a type of saddle quite fit for peace conditions, but absolutely unsuitable for war. It did not require any very great sagacity to forecast what must occur to horses' backs under the circumstances.

This prepares us for the statement that sore backs represented one of the chief causes of inefficiency among the horses in South Africa, only exceeded by debility and mange. They were the first troubles to arise, and lasted throughout the whole campaign. Let us at once say that sore backs are caused, not only by defects in the type of saddle, but defects in fitting and workmanship, defects in horse-management, underfeeding, bad horsemanship, crushing weights, long hours of work, and softness of condition. It is obvious that all these causes may overlap.

It is astonishing to learn from the Director-General of Ordnance, R.C. Report, Appendix E, p. 278, that at the opening of the Campaign in South Africa, there were only 500 saddles in reserve, to meet the wear and tear of the 16,000 sets in possession of the troops on 15th Dec., 1899. On the same day there were 500 saddles in reserve for Mounted Infantry, and already a demand from South Africa had arrived for 11,500 sets.\* The trade could not supply, and the order went to America. We are not concerned with the question of stock in hand, dreadful revelation as it is, but it is evident that material like saddlery ordered in a panic is liable not only to fail from hasty workmanship, but must necessarily lead to the introduction of new patterns, when, as in this case, the entire stock of foreign manufacturers is bought up regardless of type or suitability.

There were many types of saddle in use during the war, derived from outside sources, which all differed in essential points from that employed by the Regular Forces. The United States, India, South Africa and Australia, all furnished saddles which generally possessed one point in common, inasmuch as they were lighter than the home patterns, and, excepting those of the United States, possessed stuffed panels.

The first great division of types of saddle employed is into panel and non-panel. The non-panel type is represented by the War Office pattern, and those made to this pattern, whether at home or abroad, after war broke out. Another non-panel

\* In this communication we are also told that there had been 500 single sets of horse harness in store, but that already 800 sets had been sent to Africa to replace casualties. There were only 1700 mule sets of single harness maintained, though 33,000 mules were known to be required for transport purposes on mobilization. The reserve of picketing pegs, ropes and mallets, was not sufficient to supply, even at this early date, one-fiftieth of the demands from South Africa.

saddle was the United States Cavalry pattern, the issue of which at Pretoria is referred to on p. 82.

The second group is that of saddles with panels, and is typified by the Colonial semi-military pattern employed by the Staff and Officers of M. Infantry, and the Colonial pattern pure and simple, with nothing military about it. In the non-panel type, the bare tree is placed upon a folded blanket beneath which is a numnah (a cloth of felt). In the panel type, the tree is covered by a panel stuffed with horse hair and flock, and resting either directly on the back, or on a numnah or blanket. In the Colonial semi-military pattern the panels are readily get-at-able, so that their removal from the tree is a matter of a few moments; in some others of the Colonial type the same facility exists, but there were Colonial saddles where access to the panels was as difficult as it is in the ordinary hunting saddle of civil life. The Colonial saddle, whether semi-military or not, may be described as, in principle, a roomy hunting saddle possessing D's and other appliances for carrying equipment. The chief failure of Colonial saddles was not so much in shape and type as in quality of material; some of them hurriedly put together for the war possessed wearing qualities little better than brown paper, and this was particularly the case with those manufactured in South Africa. The saddle D's were frequently merely tacked on, instead of being rivetted to the tree or sewn on to stout canvas. Many of the saddles at first used by irregular corps were those specially made for "trading" with natives; they were cheap and worthless. They gave a great deal of trouble from breakage and caused many injuries.

It is obvious that the substance of which a saddle is made should depend upon the living weight to be placed on it, and the dead weight which is secured to it. Colonial saddles are not constructed to carry much dead weight; a blanket, some food and simple means for cooking it, represents all the impedimenta carried. The tree of such a saddle and the substance of the material covering it may be correspondingly light. Its prototype in this country would be a good roomy hunting saddle with some extra D's.

If a saddle, in addition to carrying a man, has to carry all his worldly possessions it must be made stronger in the tree and stouter in its material, and the increase in strength means increase in weight. Consequently it is no use talking about reducing the weight of the Regulation saddle until the question of what constitutes a fair load for a soldier's horse is settled. If it is to be twenty stone, as at present, nothing lighter than the existing material will carry the mixture of dead and living weight.

As a matter of fact, we know that the infliction of such a weight is an outrage on any other than a trained pack horse, and that experience tells us the maximum weight a horse can carry effectively lies between fourteen and fifteen stone. We must never forget that the construction of the horse is adapted for pulling a weight, and not for carrying one; he can effectively haul two-and-a-half times his body

weight, and for short hours and short distances very much more than this, but he cannot effectively carry more than the one-sixth to the one-fifth of his body weight.

If, from the horse's point of view, we were called upon for an expression of opinion as to the class of saddle a soldier should ride on, we would say a strong, roomy, well-stuffed hunting saddle, resting on a blanket, the panels of which can be readily got at. Nothing more should be carried on this saddle than the man's cloak, and food for horse and rider for the day, for which purpose strong attachments, or D's, should be provided. The saddle must be roomy—nothing is so tiring to a man as a short seat, it causes him to be constantly shifting his position, tires his horse, and by twisting the saddle produces injury.

The general verdict on the Regulation saddle was that it was clumsy, heavy and too short in the seat. The causes leading to its sore-back-producing features we have previously glanced at. The Colonial (Staff pattern) saddle was excellent. The ordinary Colonial pattern was satisfactory provided it was made of good material, but the liability to breakage from bad material, defective workmanship and heavy loads was very noticeable. Defective material does not affect the question of type, and the type was good, practically the same as that used by the enemy. The Dutch of South Africa live in the saddle; we may be quite sure that no pattern is adopted by them which is unsuitable for the purpose. During the war every Burgher effected his own saddle repairs. Their profound knowledge of horse management, and the fact that though they never walk a yard they equally never sit for a second on their animals the moment they halt, preserved the backs to a remarkable degree. I have the authority of Sir Arnold Thielier, K.C.M.G., who served as veterinary officer with the Republican Forces, for saying that there were few sore backs among the real Burgher class, but their foreign allies provided them with a large number.

The saddle and equipment carried by the enemy during the war may be seen in Plate ii. It should be compared with that of our men shown in "A Mid-day Halt," Plate i, Fig. 4.

The waste of material in war is always great, sometimes unavoidable, but there are causes of waste capable of control. A "set of saddlery" comprises very much more than a bridle, saddle, stirrups and girths. Wallets, breastplate, numnah, shoe cases, rifle-bucket and innumerable straps go to make up an alarming total.

The system of military accounting demands that a complete set of saddlery shall be issued. Yeomanry and Irregular regiments were invariably anxious to leave the impedimenta behind, as they prevented the men from mounting and dismounting, and only to take the essentials; but an Ordnance issue is "all or nothing," with the result that the unnecessary material was deliberately thrown away, unless the Commanding Officer could secure some place to

store it. What the loss amounted to under this head alone it is impossible to say. Tens of thousands of pounds worth of parts of saddlery and equipment were deliberately thrown away as not being essential, or, as in the case of hay nets, not being required, as there was no hay to carry.

Not many weeks after the Director-General of Ordnance wrote his minute of 15th December, showing that the reserves of Cavalry and Mounted Infantry saddles only amounted to a thousand, a pile of saddles, one of many, might have been seen being burned in the Field to prevent them falling into the hands of the enemy. These belonged to horses which had died or had dropped out, and for the carriage of which no transport existed. When these horses were replaced a complete new saddle was also required. No wonder wars are expensive! The enemy, under similar circumstances, would have buried the saddles, but then he had been differently brought up, and, moreover, he would have been taking care of his own property. In the other case, it belonged to that long-suffering individual the Tax-payer.

The next point to be considered, in general terms only, is defects in fitting, and we here come to a very complex case. The shape and bulk of a horse's back depend upon his condition; with every variation in this there is a corresponding variation in the shape and size of the back, and, strictly speaking, it can never be said in war that a saddle fits; it may fit to-day and not to-morrow. The tendency on service is for the saddle to become large, for the reason that the horse's back is becoming smaller. This is the explanation why the most constant supervision is required; on a campaign there is no finality in saddle fitting. The saddle rests on the muscles and not on the bones: the muscles are growing progressively smaller but the bones do not waste, they seem, in fact, to grow larger as muscle-waste takes place. The liability to injury is increased day by day, as a consequence of the saddle, man and equipment coming nearer to the bony framework. Not only do the muscles become smaller, but this is followed by an alteration in their shape, so that the weight is no longer supported in the same way.

With every alteration in the muscles of the back there must be some addition to the material beneath the saddle if the latter is to maintain its proper position above the spine. In what way is the loss of back-muscle in war to be replaced? This is one of the problems in saddle fitting which the sanguine at one time believed was solved. It can only be effected by the addition of a saddle blanket to the hair panels. But if the account which has been given above is clear, it will be seen that when war broke out the Cavalry had no hair panels to their saddles, they had been taken away, and with their abolition the flood-gates of disastrous back-trouble were opened.

Whether the horse be for military or civil riding the saddle must always be at a definite height



GROUP OF HORSES IN A BOER COMMANDO.

Note the trifling amount of impedimenta carried on the saddle.

The class of animal used by the enemy is also well shown. The weight they carry may be judged from the tall broad-shouldered man holding them, who is typical of his race.

Plate II.

to you  
Annex 1A0

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above the spinous processes of the dorsal vertebræ, but, whereas for civil purposes the clear space may be small, for military purposes it must be much greater, owing to the heavier weight placed in the saddle, and the daily shrinkage of flesh. The saddle is kept above the vertebræ by the means we have just mentioned, *i.e.*, extra stuffing in the panels. Where there are no panels the extra material can only be given by placing a second blanket beneath the saddle. Two blankets and a numnah now lie across the ridge of the back and fill up the air channel which should naturally exist at this part, they also fill up the front arch. By filling in this space pressure is brought to bear on the spine and withers, so that the very measures employed to replace loss of flesh on the back may be the means of injuring the spine. On the contrary, if no second blanket be used, the loss of muscle will subsequently prove so considerable that the saddle will, as a consequence, actually rest on the spine and withers. A few minutes of this will give the horse a sore back, which may take weeks to cure.

The presence of hair panels largely abolishes the terrible conditions above outlined; for extra stuffing can be placed in a panel in a few minutes,\* or a saddle blanket employed. The channel of the saddle will accommodate one blanket plus numnah, but not two blankets, while the panels, practically, do not interfere with the channel.†

The defects in fitting which occur through saddling up in the dark can only be fully realized by those who understand how essential daylight is to such an operation. Even the most careful man may, when day breaks, find the loose end of a strap between his horse's withers and the saddle, or a buckle resting on the spine. In both of these cases injury will surely result to this remarkably sensitive part.

Defective fitting comprises many faults, not only those mentioned above, but many others into which we cannot here attempt to enter.

Defects in the horse are those associated with make and shape. High, lean, razor-like withers are sure to become injured on service; an animal with indifferent muscular development of back-muscles gives nothing for the saddle to rest on; a narrow back instead of a full wide one carries the load too low on the ribs. A round back is liable to be injured over its greatest convexity; a hollow back is injured at the two points front and rear

\* Under stress the extra stuffing need not be hair or wool; hay, grass, straw, even leaves or paper, may be substituted. In South Africa wool was available almost everywhere. General Rimington says, with a good deal of trouble he could make the Colonial saddle suit almost any horse by adjusting the stuffing and putting in wool or hay ("R.C.", Q. 12,735, *et seq.*). Colonel Thorneycroft who used nothing but panelled saddles, says that restuffing caused no difficulties to the one saddler he had per Company ("R.C. App. 52").

† The use of the saddle blanket beneath the panelled saddle is invaluable when Colonial ponies lose condition in the field, but its efficiency depends entirely on the supervision of the officer. [Thorneycroft *loc. cit.*]

where the saddle rests. Conformation plays, therefore, an important part, more especially among horses bought in a hurry for use in war.

Defects in management are so many that we can only indicate some of the principal. If men are allowed to sit on their horses all day nothing can prevent sore backs. It was a cardinal principle in the Cavalry in years gone by never to be seen off one's horse; it was considered undignified. Prejudice and ignorance die hard, and as the alternative to being on the horse's back is walking alongside him, the human element comes into operation, for who would walk when he could ride? Over and over again during the campaign attention was drawn to the importance of Cavalry dismounting at every opportunity. It serves, of course, two great purposes, it relieves the back from weight and so gives the muscles an opportunity of rest, and it admits of the blood circulating through the skin of the back after being pressed out of it under the influence of a weight of 20 stone. If horses are led in hand when military conditions render it possible, and a practice established of dismounting every hour, if only for a few moments, and, if circumstances admit, loosening the girths, exhaustion is not so likely to occur and backs are saved. One has only to read the evidence before the R.C. of a Cavalry soldier like Rimington to realize what is possible in the hands of a horse-master in the matter of saving wear and tear. (See p. 237).

The other defects in management might be embodied generally under defects in horse-mastership, for everyone ought to realize the prime necessity for hard condition before severe work is attempted,\* the readiness with which "soft" horses gall, and the paramount necessity of watering and feeding whenever possible. The distance between these and back trouble is not great. Even the roller of the blanket used at night may be a fruitful source of trouble if drawn tightly—as men invariably do—to keep the blanket from coming off. The wise Squadron Commander knows how the web shrinks in the rain or heavy dew, and has them eased accordingly. The master's eye must be everywhere, he must have knowledge, judgment and imagination.† The growth of the latter is inhibited by a

\* For this defect in horsemastership during the war the Regimental Officer was not responsible.

† A very good example of defect in this respect is given in the "Imperial Yeomanry Report" of 15th May, 1901, and "Supplement" of 1st January, 1903, "Parliamentary Papers," Cd. 803.

Some 300 pack saddles had been provided for the use of this Force. Complaints were sent home that the saddles were too small, and samples were ordered to be returned for inquiry. On their arrival it was found that the complaints arose from a complete misunderstanding as to the packing of the saddles; straw and horse hair stuffing employed to prevent the trees breaking in transit had not been removed!

The writer remembers a saddle, with a mechanical tree, being issued for experiment many years ago; a report was made on this saddle without the peculiarity in its construction being known. The panels had never been removed, and the mechanical contrivance for self-fitting lay within them unknown to the regiment conducting the trial.

cast-iron peace system, and paralyzing regulations; fortunately these can be thrown to the winds in war, and scope given to originality.

Bad horsemanship as a cause of sore back was very evident during the campaign. How could it be otherwise with men sent into the Field who had never previously ridden?

Rolling and twisting in the saddle are common causes of sore back besides being most exhausting to horses. Much of it is caused by the seat of the saddle being too short. The moment the men sit askew to take the weight off the ischii they should be dismounted. Bad horsemanship runs hand-in-hand with bad saddling; what could a man know of saddling who had never previously put one on a horse's back? We need not labour the point, it is almost unbelievable that such things could have happened.

The weight carried is the crux of the saddle question. If 20 stone has to be carried, the saddle requires to be much stronger than if only 15 stone is being carried. Those five stone make all the difference between whether a roomy hunting saddle can be used, or one suitable to carry a "man-at-arms."

No horse should be asked to carry more than 15 stone in weight all told; the service weight is 20 stone. At present the horse has to carry the rider, his arms, ammunition, accoutrements, picketing gear, food for horse and man, necessities and comforts, the whole placed upon, or strapped upon a contrivance which has to be of immense strength to stand the strain. *It is almost incredible that the animal is inflicted with the equivalent in weight of two men.* There seems no escape from a crushing weight so long as it is considered necessary to send men into the Field with anything more than their arms and ammunition—more than that, with the man's cloak and food, and the horse's corn, ought never to be placed on the back. General Rimington, during the war, got the weight of his Scouts down to 14 or 14½ stone all told. Too much credit cannot be given to this officer for the manner in which, immediately the war began, he grappled with the question of the weight carried. He was a Cavalry soldier, yet it is doubtful whether his influence in this matter was felt, even though Lord Roberts spread his views broadcast by the publication of an order. The fact is that material has to be carried at the expense of the horse for which light transport should be provided. It cannot be that it is considered cheaper to weigh down the Cavalry rather than provide them with transport; it can only be due to the fact that the limitations of horse power are not understood. Our Cavalry can never be effective until the weight is reduced to 14 stone, 15 stone being regarded as a maximum.

Haig, in his evidence before the Royal Commission, Q. 19,449, *et seq.*, regarded 14 stone as the weight to be aimed at. He found with the ordinary regulation saddle, when it was stripped of everything and the man allowed nothing more than what he stood up in, together with cloak, waterproof sheet, soap and towel, arms and ammunition,

one day's food for horse and man, that the weight could not be got below 17 stone 6½ lb. The man, stripped, weighed 10 stone 12 lb., which is too heavy. Reservists were, of course, much heavier than this, a fact which must ever preclude the Cavalry Reserve from being a reliable source of strength.

Rimington, R.C. Q. 12,656, *et seq.*, got his irregular regiment down to 14 to 14½ stone. To secure this, the men rode as they stood, together with cloak, food for horse and man. He cast away wallets, change of clothing, grooming kit, shoe cases, spare shoes, hay net, spare boots, picketing gear, breast plate, hoof picker. The spare material was carried in wagons. (See R.C., Vol. i., p. 531, App. H, and Vol. ii., p. 28).

Thorneycroft's men rode heavier, as they carried wallets weighing, when filled, 9½ lb. In the R.C. Appendix No. 52, p. 351, he gives details of his equipment. The lightest of his men appears to have ridden 16½ stone, but, even then, much lighter than the Cavalry.

General French, in his evidence, R.C., Q. 17,194, *et seq.*, said that the Cavalry soldier should have nothing on him but arms and ammunition. Discomfort would ensue, but this must be risked, even to going without food, for, as he adds, "It is absolutely impossible, if Cavalry are to do their work, that they can be laden as they were in the last campaign."

There is no part of a mounted soldier's equipment which offers greater temptation to the rider to carry weight than the wallets; anything and everything finds its way there, the most tempting souvenir being an unexploded shell. Wise Commanders soon cast wallets to the winds.

We do not intend to pursue this question of weight further. No one with knowledge defends it. If Cavalry are going to ride 14 stone in future vast changes will have to be made in the organization of this arm, including the provision of transport, for that which is at present carried on the horse.

It can be seen, in spite of the rapid survey we have made of the question of sore backs, that the sources of injury are many, and that though a dozen horses may be suffering from sore backs, not two of them may be due to the same cause. We cannot here attempt to specify the number of distinct injuries which occur, but each has its own definite position on the back, and each tells its own story. The position, then, of an injury is not a matter of accident, and this being so, the position of the injury, to the trained eye, reveals the cause of the trouble. Once this lesson is learned the next step is arrived at. If the cause is known it can be removed, and if it be removed further injury ceases. Thus the story is built up step by step, with an exactitude which depends upon the powers of observation of the squadron authorities. Simple as this may seem, it is the basis of effective legislation, and effective prevention and cure. In days gone by a sore back was a sore back, no matter where it

occurred; it might be under the seat of the rider, or in front of his thigh, or on the top of the spine behind, or on the play of the shoulder. We now know differently, and that each position of an injury on the back is distinctive of some special cause. We have, in fact, an accuracy given to back inspection and saddle-fitting which, in skilled hands, reduces it to almost mathematical precision.

This, however, can only be attained in one way, and that is by daily inspection. The officer on service who neglects to inspect the back of every horse daily fails in one of his first duties to the State. The example he sets in this matter is the one which is followed by all under him. There is no more uncommon thing in war than fighting; the days in a campaign are made up of a lot of marching and very little fighting. Peace manoeuvres, in this respect, are most misleading. The back inspection, spoken of above as a daily routine, can be carried out if time and opportunity be taken, and it is seldom that these are absent for even a day. The value of such an inspection is of the same utility as the "stitch in time"; the rub of to-day becomes the sore of to-morrow.

It is rather a matter for surprise that so few officers are skilled in the subject of saddle-fitting and the prevention of injury. They are all glad for their horses to escape without sore backs, but few show any real natural aptitude for this study. The tendency to work horses with sore backs rather than report them sick (see p. 59) is only justifiable when the squadron officer is capable of effecting such alteration as will enable the horse to work without further injury occurring. It is probably the theoretical simplicity of saddle-fitting which causes its practice to fall far below the requisite standard.

The relative proportion of the various injuries on the back which occurred during the war cannot be stated with even approximate accuracy, as records are not available, but it is safe to say that the withers and spine were three, perhaps four, times more frequently affected than any other region. This fact alone tells its own tale of defective equipment and want of supervision. A good object lesson is conveyed in Plate i., Fig. 4, which shows the halt of a column at mid-day. The amount of impedimenta carried on the saddle may there be seen, even when much has been lost through wear and tear in the campaign. The top weight oscillates, while the want of adjustment of balance causes the saddle to heel over and press against the withers. So important is the adjustment of weight that it is better to carry weight for the purpose of adjustment, than ride with one side of the saddle heavier than the other. An examination of Fig. 4 shows that the officer in command did not understand the importance of balance, or he never would have allowed a rifle to remain in the bucket, causing the saddle to heel over. Adjustment of weight is always a difficulty. A feed of corn carried in a nosebag may help or disturb matters; under any

circumstances it is a fluctuating quantity, for the bag is getting lighter as the day advances. Apart from the balance of weight the arch of the saddle may touch the withers. It is impossible for any mounted man to fail to detect this with his finger; a saddle resting on the withers is the cause not only of horrible suffering but prolonged, and frequently incurable, injury. A child could ascertain its existence when shown how, so that injured withers, besides being the most common, are also the least excusable variety of back injury. Many injuries were caused to both the withers and spine by the colonial saddles, for these were rarely wide enough in the front arch to prevent pinching, or curved up enough behind to clear the spine. The Australian stock-saddle, with its crupper staple, was a prolific source of trouble in this respect. After the withers and spine, the next place most commonly injured lay under the point where the rear arch is attached to the side-bar.

Whatever is carried on the saddle must not dangle about, but be securely fastened and all movement prevented. Nothing tires a horse so quickly as oscillating weight. If some satisfactory means for carrying the rifle could be found, other than attaching it to the saddle, it would be of material service to the horse. Dead weight attached to the saddle is more harmful than when the same weight is carried on the man's body. It is also easier for the horse to carry spare ammunition in a bandolier placed around the neck than to carry it on the saddle, especially in the wallets, where it aids indirectly in producing wither pressure.

It would be wrong to convey the impression that all sore backs are capable of prevention on service. When animals get below par the liability to injury is increased, and when, in addition to this, there is great wasting of the muscles of the back, the avoidance of injury due to the weight imposed is extremely difficult, for it is on these muscles that the weight is carried.

The Regulation head collar and bridle are generally represented as being too heavy. We agree as regards the bridle, but a head collar must be stout, for it experiences very great strain when the horse is tied up.\* The bit is unduly heavy and of a wrong pattern. The bit and snaffle (bridoon) should be combined, and not in two distinct parts as at present, necessitating four reins. A single pair of reins should suffice, as in the Mounted Infantry bridle. Our present Cavalry bit is an instrument of torture in heavy hands, and "hands" are given to few men. On a long, hot and exhausting march it is a good practice to remove everything from the mouth, and ride the horse with the head rope placed over the nose. Parching of the mouth then occurs less readily.

\* It might, however, be made of canvas, like a ship's head collar.

*TRANSPORT BY SEA.*

The old system of transporting horses by sea was to place them in a narrow and short stall, and put a sling under them. No attempt had been made officially to improve on this system until 1899, though the sea transport of horses was known to be attended by mortality, which was frequently high. In 1887 important improvements on the existing system were suggested. It is gratifying that the new ideas, if not originating with the Veterinary Service, were first put forward by it, and to Colonel Duck must be given the credit of drawing attention to a better system of carriage at sea.\* He had gained his first experience in the Abyssinian War of 1869, when he observed, in the transport of mules, that the stalls were too short and the breast bar too high. The closely fitting "crate" into which an animal was packed, in what we shall term the Admiralty fitting, did not take into account, nor allow of, an animal altering the position of its body in order to maintain the vertical attitude during the rolling of the vessel. It is obvious that to effect this he has to "hang back" when the roll is from him, and lean forward when the reverse movement occurs. In a short stall, such a to and fro movement is impossible, and the foot hold is consequently lost. To compensate for this the sling was introduced to prevent the animal from falling, and in bad weather, when this was tightened, he behaved in it as a pendulum, and bumped to and fro.

When the introduction of steam facilitated the transport of horses by sea from one continent to another, the margin of profit could only be satisfactorily increased by cutting down expenses. The first regular, and at the same time most difficult, passage established for horse-ships under steam was between Australia and India, and the shippers in these used, for economy, a pen holding four or five animals, instead of a separate stall for each, and, to further reduce expense, did away with slings. They depended upon a good foothold to keep the animals from falling. They experienced a good deal of loss at times through fittings giving way in bad weather, but proved the important fact that slings were unnecessary to keep a horse on his feet. As a matter of fact, if tightly drawn up to the body, they actually carry him off his legs, and become a positive evil. It is not essential to this history to know all the sources through which this information was obtained. We assume that the Australian trade with India was the first on a large scale, but the Arabs, probably for centuries, have been shipping horses to India from the Persian Gulf, and though, of course, they chose their season for the passage, the arrangements for the animals were of the most primitive character. When the Trans-Atlantic trade opened up, and the shipment of horses from America ran into between twenty and

thirty thousand animals a year, no slings were employed nor were separate stalls used. Boats were specially built, the pens having a maximum size of 15 feet x 9 feet; horses and cattle travelled in the same type of vessel. There were individual heavy losses but the average was remarkably small,  $2\frac{1}{2}\%$  and under for horses. The voyage, of course, was short, and the temperature may be taken as uniform, compared with a ship going from north to south.

Just before the war a Committee of War Office and Admiralty Officials was appointed to consider the question of the sea-transport of an Army Corps. Among other matters, that of the transport of horses had to be dealt with, and for this purpose Colonel Duck was a member of the Committee. The principles he laid down on this question in 1887 were those which he placed before the Committee, and he urged that a stall of greater length should be furnished. He pointed out that the short stall of six feet, in bad weather, did not give the horse sufficient room to resist the rolling of the ship, and that it was impossible for the animal to get his hind quarters far enough back when the decks were at a steep angle. In consequence, he was either shot forward against the breast bar or rubbed his quarters raw. By lengthening the stall the animal was given room to maintain his vertical position during rolling, and no slings were then necessary to keep him on his feet; in fact, the latter were, as explained above, even harmful.

Having given the horse room to move to and fro for the purpose of vertical adjustment, it only then remained, as Colonel Duck pointed out, to give him a reliable foothold in order that he might maintain his position. On this point he laid the greatest emphasis. What could men do in bad weather if everything they laid hold of to save themselves gave way under stress? The position is identical with that of the horse, which has to try and save itself through its legs, and will succeed if only he obtains a firm foothold against which he can press.

At this time—July, 1899—there were in store old pattern short stall fittings for 10,000 animals. The Committee urged that more modern measurements should be adopted, and money provided to furnish 6000 new fittings. It was not, however, until September, a few days before war was declared, that the Treasury approved of £25,000 being spent on fittings for horse transport.† Of course, these had not been put in hand when war occurred, the result being that only fittings of the roughest kind could be provided.

Another question dealt with by the Committee was the utilization of cattle boats as horse transports, a point urged by Colonel Duck, from personal experience, and supported, for the same reason, by General Truman, the head of the Remount Service. This turned out an equally satisfactory measure, and these vessels were subsequently largely employed.

\* "Veterinary Hygiene," F. Smith, 1887, p. 297.

† R.C., Q. 2356, 9534.

This class of ship was specially built for the trade, and was furnished with bilge keels to keep them steady, water ballast, and ballast tanks, the latter not found in other types of ship (R.C. Q. 9807.) The water ballast enabled a large supply of fresh water to be carried, which was replaced as ballast by salt water let in. The vessels also were well drained, and naturally adapted themselves to the erection of stall fittings, in place of the pens usually employed in the trade. The standings were cemented. The existing number of ships of this type was obviously limited, and, as matters turned out, many were employed which were not designed for animal transport.

It is noteworthy that in the subsequent official inquiries both the Inspector General of Remounts\* and the Admiralty† laid claim to originating the new fittings. Colonel Duck's name does not appear.

This general statement enables the position of affairs at the outbreak of hostilities to be understood. The old system of carrying horses in short stalls was in theory discarded, and trade methods adopted. In one respect we carried this too far, and that was in the neglect of sanitary precautions, a matter not so obvious in a short trans-Atlantic passage as in a 30 days' journey, part of which was through a tropical zone.

When war broke out on 12th October we possessed no new fittings, but the Admiralty showed their usual promptitude in dealing with a situation where common sense and energetic action are required. Plans of the new fittings were soon got out, a small army of carpenters employed, and in a few days fittings corresponding to the recommendations of the Committee were erected on the transports. They were rough, of green and undressed timber, and long French nails were employed where screws only should have been used. They possessed one great defect, and that was the weakness of the slot into which the parting boards between each stall were placed. The slot was not only too shallow, but was formed by two pieces of wood being nailed on to the uprights, or stanchions, of the stall. When this weakness was pointed out to Naval Transport Authorities it was not considered by them to be important, and the Veterinary objections were overruled. In a few days they purchased, at public expense, a lesson to which reference will be made later. In spite of the haste the troops were on board before the fittings were completed, and the ships, in some cases, left the dock with the carpenters still at work. ‡

\* C. of E. Rem: Q. 1718, 4410, 4530.

† R.C., Q. 9793, 9804.

‡ It may be noted that it takes 12 days to fit up a troop transport to carry Cavalry. The tonnage allowed to a horse on a transport, that is, a ship carrying troops, is 11½. In Remount ships 6½ tons per horse, and 3 tons per mule were allowed; the mule tonnage is only one-fourth that of a horse, as they are carried in pens instead of stalls. In consequence, a ship which carries 700 horses would carry 1000 mules. (Q. 4517.)

The scale of measurements laid down for stalls and gangways was excellent in theory, but frequently fell short in practice, especially towards the ends of the vessel. Here it was difficult to walk between the animals' heads excepting by going sideways. There must be ample passage room, not only for the purpose of ventilation, but for exercise. It is wholly wrong that horses should be almost head to head, each breathing the vitiated air of his opposite neighbour. Especially was this the case in those ships carrying Remounts under freight charter, where the owners' chief object appeared to be to stow away as many animals as possible irrespective of sanitary requirements.\*

The lengthening of the stalls from six to eight feet carried the standing up to the side of the vessel. There was consequently no alley-way behind the horses for the purpose of clearing out the dung. This had been anticipated, and the objection was met by the Authorities saying that in the trade the standings were not cleaned out during the voyage, and that the troop horses were to travel under similar conditions. This showed a want of knowledge of the amount of excreta a horse produces in a voyage of thirty days; behind mares it was a foul pool of pulsatious faeces fetlock deep; behind geldings it was a mound which raised their hind quarters considerably above their fore hand, and threw considerable strain on already tired fore legs. In the C. of E. Rem: a strong effort was made to ascertain who was responsible for giving this order, but nothing definite resulted. As a matter of fact, on transports carrying troops the putrid mass had to be removed, as its overpowering stench cannot be described. On Remount ships the labour for cleaning out the stalls did not exist, and for 30 days the hind feet were either buried in a quagmire, or the horse standing down hill.† Cleanliness is the keynote to efficiency on board ship. There are sufficient other detrimental causes affecting horses without adding to them and, moreover, ruining the hind feet.

It is not our intention to enter into details of construction of the stalls employed, but only to indicate general principles, and the weak points in those erected for transport purposes during the war. To one of these allusion has already been made, i.e.,

\* The Admiralty approved of a Remount boat, the "Manchester City," which subsequently turned out a "Black Hole." They accepted the owners' statement that she would carry 2500 mules without apparently verifying the calculations. She carried 2000, about 500 too many, and experienced shocking losses, an account of which is given later. See C. of E. R., Q. 4176, 4397, 4413, 4415, 4442, 4445, 6155.

† This, and another equally unsatisfactory ship, the "Anselma de Larrinaga," were both engaged, not only under freight charter, but the owners were permitted to carry the animals as they would do their own, an objectionable clause which encouraged overcrowding, and robbed the conducting officers of the right of veto.

‡ We shall see presently the trouble in which this involved two Veterinary Surgeons. Yet the Authorities, when they reported these cases, must have known that all Remount ships were in a similar condition.

the side bars dividing the horses, which were not only too weak in substance, but too shallow. The slot, it will be remembered, consisted of two pieces of wood placed parallel to each other and *nailed* to the upright. These were frequently kicked away, and the boards fell out. The slot ought to have been cut into the uprights, and the boards would then have been secure. The breast bar on Remount ships was generally one long piece common to four or five stalls, so that in order to take a horse out of his stall, the bar in front of four or five others had to be removed. The breast bar for each stall should be distinct, as on troop transports. The bar also must be a different height for horses and mules. If too high with small animals it injures the front of the neck. There must always be three stanchions to two horses, and not two, as in some Remount fittings. The flooring must be of wood, with cross battens placed in the right position for catching the feet. These battens must be thoroughly well secured, as there is a great strain on them. The importance of a sound flooring cannot be too strongly insisted upon. In bad weather everything depends upon the horse maintaining its foothold, and this can only be ensured by good and properly placed battens. If these are not in the right position, there is nothing for the feet to press against. It is convenient to have the flooring in two pieces, for facility of lifting, as the deck beneath requires flushing. The haunch piece must be hollowed to receive the shape of the animal, or be, at least, rounded. Some horses rest against it when tired, and, in a short stall, this is a normal condition. If the timber is not round it causes injury.

Mangers should be of galvanized iron, and removable from the breast bar. They must be furnished with two bars, which prevent the horse from throwing his food out. They should be washed out under the hose every day. Spare mangers should be carried. The canvas head collars of the ship should be in three sizes. A large head-collar on a small horse causes the nose band to compress the nostrils: a small collar on a big head cuts the jaws, and leaves no room for movement during mastication.

Feeding on long hay is always a wasteful process: on board ship there is no word which adequately expresses the loss so occasioned. If the hay is placed in the mangers it is simply thrown out by the horse, and trampled under foot. Long hay should always be placed in hay nets, small quantities at a time. It necessitates slow feeding and keeps the animals quiet. Watering is a feature which requires the supervision of the officer; every pail of water has to be carried and lifted up to the horse, and men will not do this unless supervised. The importance of ample water cannot be exaggerated, especially in passing through the tropics, and for those horses placed near the engine room.

During the War the feeding of animals on board ship was defective, especially at the beginning of the campaign. Commanding Officers were cautious

to nervousness, so afraid were they of overfeeding with grain. So marked was this in some cases, that on the advice of the P.V.O., the General at Cape Town cabled to the War Office, in February, 1900, that it was better some horses should be lost from overfeeding, than that animals should arrive full of soft food, and quite unfit to work.\* Later, as experience was gained, the feeding became more liberal. Sometimes the forage was to blame. If a ship goes to sea with defective food on board there is no changing it. Such cases were known, and resulted in the condign punishment of those officers who passed the forage. Insufficient food may occur from a breakdown or other delay, and this was anticipated by a week's extra rations being placed on the ship over and above the amount required for the voyage. Cases occurred where forage was short shipped, and horses were landed in lamentable condition. One of these we shall be compelled to look at in detail.

In a voyage lasting a month, it is certainly sound practice not to overdo the grain ration during the first week; but to reduce it to one pound a day, as we have seen done, is an absurdity. During the last fortnight of the voyage the animals may be more liberally fed with grain. There is a good deal of waste in feeding, especially with hay. Only small quantities at a time should be placed in the hay nets, say two pounds. It takes a long time to pull this through the mesh, but it avoids the sinful waste which generally occurs, and keeps the horses occupied. Carrots or roots are excellent, but they keep badly at sea.

The conveyance of mules is in principle the same as that for horses, with the exception that they are not usually placed in separate stalls, but in pens holding four or five animals. The mule is a better sailor than the horse, more placid and philosophical. His worst feature is that he eats his fittings, and reduces them to matchwood. All parts exposed to his teeth should be sheathed with iron. Similarly, head ropes are of no use, they are eaten in a day or two. Nothing but chains should be employed.

Something must be said of the Transport arrangements if we are to understand the conditions under which the animals were carried. The Admiralty conveyed all troops together with their horses. Such ships were engaged on time charter, the Transport Department providing the coal and paying all dues. These ships were specially fitted for men and horses in home ports, according to principles previously arranged. The Admiralty also conveyed all remount horses (not accompanied by troops) from the United Kingdom, and mules from everywhere. Ships for remount horses and mules were differently engaged; the animals were carried on freight charter at so much a head, and the capitation rate had to cover cost of fittings, forage, attendants for the care of the animals, water, utensils, and every other charge. Beside the Capi-

\* Cd. 963, Cable 32.



tation rate there was a bonus for each animal landed alive.

The two different systems here indicated may be described as hired transports, and freight ships, and this distinction must be borne in mind if we are to understand the differences in management, and difficulties which subsequently arose.

The Admiralty, however, did not make arrangements for the transport of all the remounts purchased. Owing to their hands being full, the Inspector General of Remounts made arrangements of his own with a Shipping Company, for conveying horses on freight charters, and for seventeen months this system continued, until finally the Admiralty took it over.

The capitulation rate was at first calculated on the number of animals embarked, but was subsequently divided into two parts: one being paid for each animal taken on board, and the other for each animal landed. In this way, the interest of the owners in the safe conveyance of the animals was assured.

All animals conveyed in freight ships suffered under a great disadvantage as compared with those travelling with troops in transports. A military conducting Officer and a Veterinary Surgeon were to accompany each freight ship, though, owing to the difficulty of obtaining the services of these two classes, some of the early ships were not so provided.

Conducting Officers possessing the needful qualifications were, no doubt, difficult, if not impossible, to obtain in sufficient numbers. Of 195 so engaged 109 were Lieutenants or Second Lieutenants, and, therefore, of extremely limited experience; further, 34 of this number belonged to the infantry.

Of the total number of Officers of all ranks employed on ships, 70 belonged to the infantry. It is difficult to see, so far as the animals were concerned, what purpose Officers of this branch served. The above figures show what a large proportion of conducting Officers were entirely ignorant of horses, let alone of their care and management at sea.

The Civil Transport Veterinary Service was quite distinct from that created for employment in the Field. Many of the veterinarians were foreigners, and it is now known that some of these possessed no qualification. No matter how experienced a man may be on land, it is certain he has a good deal to learn when he first goes to sea with horses, so it was desirable, as far as possible, to retain the services of those practitioners who had already obtained experience. The evidence of witnesses before the Royal Commission and Court of Enquiry Remounts, was generally to the effect that the Veterinary Transport Service conducted by British practitioners was successfully carried out; there were exceptions, and, no doubt, there were men who, from an absence of personality, failed to make themselves felt.

The care and constant supervision which horses everywhere require is greatly increased on board ship. But for this purpose it is sufficient on troop

transports that one man should look after four or five horses; all men over and above this proportion should be cleared out of the horse decks in order to increase the extremely small air space. On troop transports the difficulty is not to find labour, but to employ it skilfully in the confined space. On freight, *i.e.*, Remount vessels, there were no soldiers; civilians were engaged for the voyage, and the condition of the horses at the end of the journey, other things being equal, largely depended upon the manner in which these men performed their duties.

The proportion of attendants to animals on this class of vessel was fixed at one man to 15 horses or 20 mules; had they been trained men at the work it might have sufficed to water and feed the animals, but not for cleaning out the stalls. They were not, however, skilled men; many knew nothing of horses, nor had experience of the sea; they were drawn from all classes and conditions, and were difficult to keep under discipline.\* Some of the witnesses expressed themselves on this point in more forcible language than the Court, for even mutiny was not unknown.† It must be remembered that in the tropics it is not possible for a man to remain long in the lower decks of a horse ship, especially amid such insanitary surroundings as we have described, without feeling faint or being actually sick, and we are strongly of opinion that the labour provided for the care of the horses on freight ships was insufficient. It ought to have been not less than one man to 10 horses. The Report of the Court of E. Rem.: points out in para. 118, that the master of the vessel did not always concern himself with the way in which the men carried out their duties, and that men were frequently short shipped. Under these circumstances it is not remarkable that horses were landed in bad condition. Later, during the war, there was an improvement in this respect, as the men were prohibited from landing, so that they were no longer being carried in order to enlist in the first irregular corps requiring recruits, or, as was reported, joining the ranks of the enemy.

It seems to us essential that the great difficulties the conducting Officers and Transport Veterinary Surgeons had to contend against in the care of horses on board ship should be clearly realised this is especially necessary in order to understand the cases yet to be narrated.

One witness gave evidence that the labour party (in this case soldiers) was removed from the ship before the horses were landed, and that he and the first engineer of the vessel had to water and feed them!‡

The relationship between the Sea Transport Veterinary Service and the Military Conducting Officers cannot be described as cordial. Their duties overlapped, a fruitful cause of difficulties;

\* Report of C. of E. Rem., para. 119.

† See C. of E. Rem., Q. 5514.

‡ C. of E. Rem., Q. 3991.

there was also a natural ignorance of military system on the part of the veterinary element, and there was the determination of the conducting officer to retain some semblance of the authority with which he was undoubtedly invested. We cannot think that the cause of difficulties and misunderstandings was always on the veterinary side, and some evidence will be quoted in support of this view. Both were in an extremely difficult position, demanding great tact, for each was under the Commander of the vessel, in whose hands the labour party was placed. When difficulties arose orders to the men had to be transmitted through the Captain of the ship, so that the conducting officer frequently found himself in a doubtful and humiliating position of responsibility. \*

The chief cause of friction between the conducting and Veterinary Service arose from interference with purely professional duties. Some conducting officers expected the Veterinary Surgeon to carry out their treatment. One insisted that all temperatures should be taken at the mouth, with the result that the thermometers were soon destroyed. Another suspended the Veterinary Surgeon from duty without good reason. One insisted, against veterinary advice, in shooting, as glandered, every horse with a nasal discharge. This case came before the Court of Enquiry Remounts, who, in referring to the destructions, say, "In so doing he acted upon his own responsibility, without the advice of the Veterinary Surgeon on board." † The full facts of this case were before the Court, and it was known the officer acted *against the advice* of the Transport Veterinary Surgeon, and in spite of his remonstrations, we shall, therefore, give an outline of the case.

The s.s. "Cervona" left New Orleans on 8th Feb., 1901, with 849 horses on board, an Artillery Captain as conducting officer, and a British Veterinary Surgeon. There were many cases of catarrh—a common complaint on board ship—and the Artillery Officer got it into his head that the animals were glandered, in spite of veterinary representations to the contrary. He then stated his intention of shooting them, and was advised that there was no necessity, as the animals were free from contagious disease. He shot no less than 251, representing £17,500, and, but for bad weather, would have destroyed many more, but could not get the carcasses overboard. Including deaths from other causes, he arrived in Table Bay with 571 animals, all of which he regarded as glandered.

It is, perhaps, as well that the statement of the General Officer of Cape Town on the matter should be given; it appears in the Royal Commission, Q. 13,783;—

"One Artillery Officer, on arriving, said that the whole of his horses had been suffering from glanders, that he had already thrown 50 overboard, and regretted that he had not had time to throw more over. On a Veterinary examination it turned out that there had not been a single case of

glanders on board; one or two horses had suffered from something or other, and he threw them over the side wholesale, and the horses adjoining, and the horses two or three off."

It is interesting to note that this astonishing evidence did not provoke a single question from the members of the Royal Commission. The matter, as we have seen, was even worse than was represented. In the C. of E. Rem: General Truman gave evidence, Q. 1903, *et seq.*, that 251 horses were unnecessarily destroyed, and that the Military Officer overrode the decision of the Veterinary Surgeon, and acted entirely on his own responsibility.

The C. of E. Rem: deal with the matter in nine lines, contained in paras. 125 and 182. Here we are told that "he acted on his own responsibility, *without*\* the advice of the Veterinary Surgeon on board." The Court had it in evidence that he acted against the advice of the professional man.

We may complete the story by adding that the animals were examined at Cape Town, and again, by a Veterinary Board on reaching their destination, at Port Elizabeth, and the opinion given was that no case of the disease existed on the ship, and probably never had. This important fact is not mentioned by the Court of Enquiry.

There were two cases seriously involving the credit of the Transport Veterinary Service, to which great publicity has been given, both by published cables and especially by the Court of Enquiry Remounts. We propose, in the interests of the profession, to examine the facts, as they impute charges of grave neglect. The ships implicated were the "Knight Bachelor" and "Monterey," from North America. Their respective Veterinary Surgeons were foreigners, a fact which is not stated in any of the reports.

The horses on these ships were, it is said, in charge of the Veterinary Surgeon, there being no conducting officer. If this were so the position was one of increased responsibility and trust. †

The "Knight Bachelor" arrived at Port Elizabeth from New Orleans on 27th July, 1900, after being 41 days at sea. One thousand horses had been shipped, of which 44 had died (4.4%). The Military Landing Officer at Port Elizabeth reported ‡ that he boarded the vessel on arrival, and found "the whole place inches deep in decomposing stagnating filth." The horses were "literally packed like

\* The italics are ours.

† The Inspector General of Remounts stated, in Q. 6916, that Veterinary Surgeons were not in charge as conducting officers, but only to perform professional duties. He adhered to this, though the case of the "Knight Bachelor" was specifically referred to.

The Court of Enquiry, in their Report, do not settle the point. In para. 176, they say, in the absence of a conducting officer, "the entire responsibility for the safety and well-being of the cargo falls upon the master." Yet, in para. 182, they say, "written instructions should have been given to the civilian Veterinary Surgeons, who, in certain cases, were in sole charge of horses on board ship."

It is difficult to reconcile these three statements. Matters of the deepest importance to us as a body depend upon whether the Transport Veterinary Surgeon could or could not be placed in charge as conducting officer.

‡ C. of E. Rem: Q. 6044.

\* See C. of E. Rem., Q. 3989, 4074, 4076.

† Report, para. 125.

herrings, and even the ship's coal bunkers had been utilised to place them in." The fittings were inferior and flimsy, splintered and wrecked beyond conception. There were only 37 cattlemen to look after the horses, or 27 horses per man. "Consequently no cleaning had been attempted. The accumulated filth of 41 days at sea is better imagined than described. The ventilation of the lower deck was defective, and the steam fans did not appear to have been at work systematically. Many of the water tanks contained putrid water, the mangers were small and unsuitable." . . . "I attribute the semi-starvation the animals undoubtedly suffered from, to the fact that the horses tossing about the hay, as is their wont, led to the hay falling out of the troughs on to the decks . . . . The forage supply placed on board was totally inadequate to the number of horses shipped and the length of the passage, or it had been shamefully wasted. They appear to have run out of hay nine days before reaching Cape Town, where more had to be taken on board to allow of the ship proceeding to this port. The animals, according to the cattlemen's reports, had been fed on bran for ten days prior to the ship's entering port."

"The civilian Veterinary Surgeon put on board to look after the animals . . . . was totally incompetent, and could not have exerted himself in the least. The Cattlemen report that he was seldom seen between decks."

The statement of the filthy condition of the vessel, and the semi-starved state of the horses is supported by a letter from the Divisional Transport Officer, Royal Navy, contained in Q. 6046.

The Veterinary Report by the S.V.O. Remounts, Port Elizabeth, is given in Q. 1861, and is as follows:—

"Nothing could convince me to the contrary that there was not culpable neglect in the feeding of these horses, and the majority of the emaciated showed no symptoms of disease, either past or present, and yet were living skeletons. This in itself distinctly points to starvation pure and simple."

The Court of Enquiry received none of the above evidence on oath, nor were any of the witnesses examined. The statements are accepted as fully established, and in their Report presented to Parliament, para. 117, they give an outline of the case, and conclude by saying, "There was no conducting officer on board, and the horses were in charge of a civilian Veterinary Surgeon, who had been engaged for the voyage at New Orleans, . . . The horses were half starved, and so grossly neglected that it was considered that the majority would be useless."

The entire onus for the condition of these horses is placed by the Court on the civil Veterinary Surgeon in charge. Yet five features stand out very clearly; (1) The Inspector General of Remounts told the Court that the Veterinary Surgeon was not in charge (see foot note, p. 256); (2) The Veterinary Surgeon was not responsible for the overcrowded state of the vessel; (3) Nor for the short shipment of forage; (4) Nor for the bad type of manger; (5) Nor for the short shipment of cattlemen. For these deficiencies the Remount Authority at the port of embarkation must be looked to, and, as a matter of fact, this was the view taken by the Secretary of State, who, in consequence, directed him to be recalled from America (see C. of E. Rem. Q. 6059). Nowhere in the Report made on this vessel by the Court of Enquiry is the Remount share in the disaster referred to, or the Secretary of State's action thereon mentioned, though the facts were

before the Court. The omission is perfectly unaccountable.

But the case is even still more unfavourable to the Remount Authorities, for it was by the order of the agents of the Remount Department that the stalls were not cleaned out. Every effort made by the Court failed to ascertain who actually was responsible for this as a general order for all ships, transport and freight.\* It was known to be the method followed in the trade (see p. 253), and in the Cavalry (see p. 234), and was approved by the Inspector General of Remounts (Q. 1676, 6878), himself a Cavalry Officer.

Under instructions received at New Orleans the veterinary surgeon on the "Knight Bachelor" did not have the stalls cleaned out (Q. 6052), nor would the labour on board have secured this even had he gone contrary to his orders. We have it also in the evidence of the Remount officer at New Orleans (Q. 1247), that the "Knight Bachelor" was a ship that he always had a difficulty in getting properly cleaned [in port], and to effect this he had three times more trouble with this vessel than any other. For this unsatisfactory state of affairs he blamed the captain and crew (Q. 1243).

In the face of this evidence, all of which was before the Court, is it possible to hold the civil veterinary surgeon responsible for the filthy condition of the "Knight Bachelor" on her arrival at Port Elizabeth? Not a word of the above appears in the Report of the Court of Enquiry to assist in explaining the disgraceful condition of this vessel. The report of the military landing officer is the text of their indictment.

One might have thought that the "Knight Bachelor" was the first vessel to arrive in Africa with stalls on the "Continental system" (see p. 234). But more than 260 vessels had entered one or other of the four South African ports between the outbreak of war and the arrival of the "Knight Bachelor," and all were in principle, if not in practice, arranged for on this system. It was only on troop transports that the abomination could no longer be tolerated, and a superabundance of labour was available for clearing away the accumulated filth from beneath the horses.

We, therefore, submit that the veterinary surgeon of the "Knight Bachelor" was not morally responsible for her condition, that her overcrowded state and shortage of labour rendered it practically impossible to clean her, while the condition of horses was due to insufficient forage having been placed on board. We cannot help but feel that the Court should have arrived at the same conclusion.

The Court charges this Veterinary Surgeon with incompetence. He may have been incompetent, but there is no evidence to that effect, excepting

\* See "C. of E. Rem. Evid.," Q. 1673 to 1676, 1678.  
Q. 4975 to 4978.  
Q. 6052 to 6054.  
Q. 6877 to 6924.

See also Report, paras. 181, 182.

the *ipse dixit* of a layman, an Army Lieutenant, whose report we have quoted.

There was, however, in this case a feature most disgraceful if true. The Military Landing Officer, in continuation of his report, in Q. 6044, says:—

"The same Veterinary Surgeon, when ordered to proceed ashore to report his arrival to the O.C. No. 2 Remount Depot, did not do so, and had not done so up to the time he sailed in the ship without orders. When he did come ashore he became hopelessly intoxicated."

The C. of E., it will be remembered, had none of this Officer's evidence on oath, and no man can be convicted of drunkenness unless on corroborative evidence, of which there appears to have been none. The official statement is that he did not report himself, and it would seem, therefore, that the charge was made on hearsay, which no court of jurisdiction would accept. Nevertheless, the C. of E. Rem. state in their report, that he "*came on shore*" in a state of intoxication! No such statement occurs in the official report of the Military Landing Officer; he is there charged with becoming drunk while ashore, and, without in any degree condoning the reported state of this man, there is as great a difference in coming ashore drunk from his ship, as there is in an officer going drunk to mess—which is a court martial offence—and returning drunk after mess.

Nothing appears to have been omitted which could tell against this Transport Veterinary Surgeon. In the report of the Military Landing Officer the cattlemen are quoted as his authority for saying that the Veterinary Surgeon was seldom seen between decks during the voyage. It may have been so, but the statement of men from whom he had, under evident difficulties (see Q. 1243), to extract work, should not be permitted to carry weight, especially, as we have the authority of the Assistant Inspector of Remounts, S.A., for saying, they were "the riff-raff of the New Orleans and Liverpool slums."†

Even the small mortality on the vessel is not permitted to tell in the Veterinary Surgeon's favour, for the Military Landing Officer actually stated that he ascribed the low rate of mortality "entirely to the hardness of the poor animals, in spite of the criminal neglect they have been systematically subjected to!" It is difficult to conceive a statement of greater prejudice. We cannot help blaming the Court of Enquiry for not stating the whole facts of the case, and for too readily adopting the report of the Military Landing Officer. We submit that, bad as were the facts connected with the "Knight Bachelor," the entire blame should not have been placed by the Court on the Transport Veterinary Surgeon, and this was the view of the Secretary of State for War. We blame him, but for a different reason to that given by the Court. He should have refused to take Veterinary charge of a vessel so

overcrowded and with insufficient labour on board. These were facts patent even to a layman. The flimsy state of the fittings and the small mangers were also obvious, and ought to have been objected to, if he were actually in charge of the horses as conducting officer. He could know nothing of the shortage of forage. He was told not to clean out the stalls. The unsuitability of this dark and slow ship cannot be placed to his credit, as it was engaged by the agents of the Inspector General of Remounts. We blame him if, as is stated, the drinking water in the tubs was putrid, assuming that the supply in the tanks of the vessel was sound and sweet, for these he could himself have emptied on the deck. As to his reported condition ashore, we have seen reason for believing that all the elements for a mistake exist, as he never reported himself.

The second case is that of the "Monterey," which left New Orleans on 7th August, 1900, with 1168 horses on board, in charge, it is said,\* of a Civil Veterinary Surgeon, a foreigner. She arrived at Cape Town on 10th Sept., and the vessel and horses were inspected by the Staff Officer for Remounts, who was "satisfied as to the condition of the horses and the ship, excepting as regards the mucking out."† The Captain of the vessel, stated to the owners (Q. 5999, 6012, C. of E. Rem.), that at this inspection he was complimented on the appearance of the horses. The ship did not disembark her horses at Cape Town, but proceeded to Durban. On her voyage to this port, which occupied five days, she met with heavy weather. On her arrival at Durban, instead of the horses being at once disembarked, the ship was anchored at sea, outside the harbour, and kept there for two days, where she rolled incessantly. In the finest weather a ship rolls heavily at this point, and at the time we are speaking of a gale was blowing. At the end of two days she was brought into port, and the vessel and horses inspected by the Assistant Inspector of Remounts, Natal.

His evidence, given before the C. of E. Rem., is contained in Q. 2832. He stated that the vessel was in a "deplorable condition; the horses frightfully overcrowded, up to their hocks in muck, and in miserable condition." The number of deaths during the voyage was 25, or 2.14%. "Only 500 horses were fit for issue on landing, the remainder being too debilitated to warrant any hope of their being fit to send to the front within a month."‡ The witness attributed the poor condition of the horses to "the faulty arrangements of the ship, to the absence of any proper system for their care, and to the fact that the stalls were not

\* The italics are ours.

† Cd. 363, p. 18

\* See footnote p. 256.

† Report of the General Officer Commanding, Cape Colony, C. of E. Rem., Q. 6024.

‡ Report of the General Officer Commanding, Cape Colony, C. of E. Rem., Q. 6005.

once 'mucked out' during the six weeks of the voyage."\*

The report on this ship gave rise to considerable War Office correspondence with South Africa, and the General at the Cape, after referring to the satisfactory condition of the horses when inspected at Cape Town by his Staff Officer, reported, "there is every reason to believe that the subsequent loss of condition in the animals was due to bad weather at sea between this port [Cape Town] and Durban, and possibly to the effects of the weather when lying off that harbour.† The whole of this correspondence was produced and placed before the Court. Yet the opinion they have recorded on this case, in paras: 116 and 176, is that the horses were starved and neglected, so that two-thirds were unfit for service for two months. The Court adds that they were in charge of a Civil Veterinary Surgeon, who was incapable, and that the stalls had not been cleaned out during the voyage. No mention is made of the satisfactory condition of the horses when inspected at Cape Town a week earlier, nor of the bad weather between that port and Durban, nor of the ship being kept outside for two days in a gale.

It is little short of extraordinary that a Court specially charged to investigate this matter does not refer to the incomprehensible action of the naval and military authorities in keeping this vessel outside the harbour at Durban for two days, instead of at once unloading her, though the seriousness of such action is obvious. We contend that this, and the fact of the satisfactory inspection of the horses at Cape Town, together with the opinion of the General Officer at Cape Colony, should have found a place in their Report. Nevertheless, these facts, in the opinion of the Quarter Master General War Office, "changed the whole aspect of the case." (Q.6004). The Court also was aware that the non-cleaning out of the stalls was due to the instruction of the Remount Officer at New Orleans, but in the face of this, the entire blame for the "Monterey" is centred in the Civil Veterinary Surgeon.

Unfortunately he seriously prejudiced his position by being found "drunk and incapable" (Q.2832) in his cabin on the vessel being brought into the harbour at Durban. He was seen in this condition by two officers, so that, to our shame, the fact is established.

It would have been a gracious act on the part of the Court to have mentioned the favourable reports received on this Transport Veterinary Surgeon, as they did in the case of the Remount Officer removed from his position by the Secretary of State (Report, para.95).‡ It was before the Court that the Remount Officer at New Orleans had stated to the Inspector General of Remounts (Q.5999) that the Transport Veterinary Surgeon of the

"Monterey" was a competent and hard working man, specially selected for the position, and that the Captain of the vessel had stated he had never seen a man work harder during the voyage, and that he was "never intoxicated except upon the regrettable occasion mentioned."

It would also have been just to the veterinary profession in this country to have stated that neither of the Transport Veterinary Surgeons mentioned above held a British qualification, and that both were foreigners.

The Court, in their Report, para.176, sum up their opinion on the "Knight Bachelor" and "Monterey" as follows:—

"With reference to the particular cases of the s.s. "Monterey" and "Knight Bachelor," the primary cause of the starved and neglected condition of the horses was clearly the absence of a conducting officer. In both instances the Veterinary Surgeon was incapable, and it does not seem that the master of the ship considered that he had any responsibility in the matter. The attendants were the servants of the ship owners, and were under the command of the master, and as there was no conducting officer on board, the entire responsibility for the safety and well being of the cargo fell upon the master."\*

We have placed before the reader all the facts of both these cases, and he must judge how far these warrant the conclusion drawn by the Court of Enquiry. The opinion given of the responsibility of the master relieves both Veterinary Surgeons of the charge of starvation and neglect. Nevertheless, in spite of this declaration, the Court, in para.182, were of opinion that "written instructions should have been given to the civilian Veterinary Surgeons, who, in certain cases, were in sole charge of horses on the ship."† It is difficult to reconcile these differences of opinion.

Of the alleged professional incapacity no evidence is adduced, while, if mortality be taken as the index, it is, especially in the case of the "Monterey," entirely in their favour.

Nor can we help remarking on the freedom of language employed by the Court in describing these men, as compared with the moderated tone adopted in dealing with Military Officers. With these incompetence becomes "unsuitable" (para.163), or "desirable to withdraw" (para.95); inefficiency is described as "a weak point" (para.225). Even the astonishing "Cervona" case becomes one of "a peculiar nature" (para.125), and the officer is merely described as "unsatisfactory" (para.182).

There is a third transport case to be dealt with. It did not find a place in the Report of the Court, but there is a great deal about it in the Evidence volume, which requires explaining.

The "Ripplingham Grange," a ship engaged by the Agents of the Inspector General of Remounts, left Sydney on 12th June, 1900, with 1085 horses in charge of a Colonial Veterinary Surgeon, there being no conducting officer. The vessel arrived at Durban on 14th July, after a very bad passage (Q.6030), and, instead of disembarking her weary

\* Report of General Officer Commanding, Cape Colony, C. of E. Rem., Q.6005.

† Report of General Officer Commanding, Cape Colony, C. of E. Rem., Q.6024.

‡ This History, p.257.

\* The italics are ours.

† " " "

horses at once, she was kept outside the harbour for six days in a gale (Q. 6025), during which time she could never have ceased rolling. The Agents at Durban apprised the War Office by cable of the unfair strain to which these wretched animals were needlessly exposed (Q. 5538), and under cable instructions from the War Office (Q. 5540), she was brought in and her horses unloaded. Such are the facts of the case.

When the Assistant Inspector of Remounts boarded the vessel in Durban Harbour, he found, according to his report (Q. 2900), that 140 animals had died out of 1005 embarked, and that many were so debilitated that some 20 had to be destroyed on board. The balance was stated to be in such "a shocking state of debility" that they would be unfit for duty for many weeks. Later (Q. 2902), the same witness placed the period of inefficiency at six months, but he apparently had no notes to guide him, and even with notes, his evidence on other matters was remarkable for inaccuracies; for instance,—1085 horses embarked, and not 1005, as stated by him, while the deaths were 104, and not 140.\*

The Remount Officer in Australia was communicated with, and his opinion was that the Transport "Veterinary Surgeon turned out very badly" (Q. 7555), but no reason for this opinion was given. When the Assistant Inspector of Remounts, Natal, was pressed (Q. 2905) as to the condition of the horses being the result of the effects of the voyage rather than of neglect, his reply was, "that I cannot tell . . . they told me they had had a very bad voyage."

The Quartermaster-General and Remount Authorities at the War Office, 7000 miles away, were, however, satisfied that the rough weather and "other causes" accounted for the condition of the horses landed. The "other causes" are not specified, but, clearly, they indicate the detention of this vessel, anchored in the open sea for a week during a gale and ceaselessly rolling. The only wonder is that she did not lose more than 9.8% of her horses. The fittings did not give way, and the deaths were caused by "absolute exhaustion" (Q. 6035).

The Court of Enquiry does not refer to this case, which reflects so gravely on the Naval and Military Authorities at Durban. In common fairness, the charge made against the Veterinary Surgeon in Q. 7555 should either have been substantiated or withdrawn. We regret to notice a willingness to find especial fault with the few ships which came over with Veterinary Surgeons said to be acting as conducting officers. For example,—the Assistant Inspector of Remounts, Natal, in Q. 2828, in speaking of some ships arriving without either a conducting officer or Veterinary Surgeon on board, stated that even if there was one of the latter, "he was probably a man not worth anything," and we have met with

this elsewhere, notably in Q. 6044. The Assistant Inspector of Remounts, S.A., in his report on the relative advantages of sending Remounts by "troop transport" or "freight transport," referred to the "gross neglect and inefficiency," in some instances, of the Civil Veterinary Surgeons and others in charge of animals from North America and Australia.° By the term "others," it is assumed conducting officers are intended. This ought, we think, to have been made clear, and not only the Transport Veterinary Service indicted. That there were conducting officers who failed is stated in the evidence of the Inspector General of Remounts.† He further added, he had recommended their services to be dispensed with, and that in some cases higher authority had deprived them of their medals and gratuity.

In the face of this evidence it is difficult to understand how the C. of E. Rem. could state that "the only conducting officer‡ whose management was reported to be unsatisfactory was the officer in charge of the 'Cervona.'" This reproach is very mild as compared with the stigma applied to the Transport Veterinary Surgeons.

#### LOSSES AT SEA.

The total number of horses which embarked from all ports for South Africa during the war is given as 352,353, of which 13,144 died or were destroyed on the passage.°° This loss represents 3.73%, but these figures are vitiated in one respect, inasmuch as the losses at sea include, in some cases, the losses prior to embarkation. The total number of mules embarked was 105,491, of which 2816 died or were destroyed at sea, or a loss of 2.67%. These numbers also are not strictly correct, from the cause above named. Nevertheless, the table is important as it covers the whole period of the war.

There are several other tables. One is in Appendix 38a of the Royal Commission, which covers the entire period of the war, though it does not include the Yeomanry horses. There are several in the Evidence volume of the C. of E. Rem., pp. 210, 326, and some in Parliamentary Papers, Cd. 963, pp. 30-32, but these only cover a part of the war, or for broken periods, or from certain ports only, and are compiled from data which do not admit of comparisons being made. There are also discrepancies among tables which should agree. We have thought it best for the present purpose to neglect all of these excepting Appendix 38a, and Parliamentary Paper Cd. 963. The latter covers the period from the outbreak of war to 31st December, 1901, or five months short of the full time. It is evident that all the tables are either incomplete for the full war period, or wanting in rigid exactitude, so that the results can only be taken as a close approximation to the truth.

† For other inaccuracies in this witness's evidence, see C. of E. Rem., Q. 2829 and 3559; 2830 and 3519; 2816 and 3488; 2904 and 6035; 3619, 3622, 3647, 3653, 3656, 3659, also p. 293, "Evidence Volume."

\* Cd. 963, p. 17.

† C. of E. Rem., Q. 1824.

‡ The italics are ours.

°° R.C. Appendix No. 38, p. 258.



A more important matter than the mean loss at sea, is that of the losses from each country. These, with the above qualification of being mixed up, in some cases, with the losses prior to embarkation, are given in the following table compiled from Appendix 38a. The mean given is that of the series of percentages in the table; this is rather higher than it would have been had the tables themselves afforded the needful data for re-calculation.

PERCENTAGE OF LOSS ON THE VOYAGE.  
OCT., 1899, TO JUNE, 1902.

	Horses with Units and Remounts.	Mules.
United Kingdom	6.04	—
Australasia	3.83	—
Canada	3.22	—
United States	2.48	2.00
Austria	1.62	—
Argentina	.64	—
Spain	—	3.06
Italy	—	.39

The number of animals on which this information is based is:—

Horses 307,400      Mules 103,760

In the following table, extracted from Cd. 963, the percentage of loss at sea of Remount horses and mules from different countries is shown for the first two years of the war. It will be observed that this table does not include horses with troops.

PERCENTAGE OF REMOUNT HORSES AND MULES  
LOST ON VOYAGE, 1ST SEPT., 1899, TO 31ST DEC., 1901.

	Horses.	Mules.
United Kingdom	6.34	—
Canada	4.05	—
United States	3.21	2.68
Australia	3.16	—
Austria	2.07	—
India	1.96	.2
Argentina	.74	—
Spain	—	2.71
Italy	—	.54

The number of animals on which this table is based is:—

Horses 206,063      Mules 91,769.

[A good example of discrepancy in official tables is afforded by the figures for mules from Italy and Spain, which, in both of the above tables, should have agreed. In the first table, 7003 mules are shown as purchased in Italy, and 15,231 in Spain. In the second table, 5102 mules appear as purchased in Italy, and 18,543 in Spain, the purchasing period in each table being identical. The first table is the more accurate.]

It has been generally believed that a great deal of the loss at sea was due to the horses being carried from high and cold latitudes to hot southern latitudes, and that where no such seasonal differences occurred the resulting loss was small, as, for example, in the case of the animals shipped

from the Argentine. To investigate this point we shall group the above tables into countries north and south of the Equator.

NORTH OF THE EQUATOR.

	Horses : *	Death Rate.
United Kingdom	6.04	6.34
Canada	3.22	4.05
United States	2.48	3.21
Austria	1.62	2.07

SOUTH OF THE EQUATOR.

	Horses :	Death Rate.
Australasia	3.83	3.16
Argentina	.64	.74

The supposed advantage of a ship not having to cross the Equator is not borne out by this table. The losses from Australia may be taken as about equal to the losses from Canada; while those from the United States, and certainly those from the Mediterranean, are less than the Australasian rate. The small Argentine loss may be explained by the fact that the trade did not last long, and the large majority of the ships ran during the most favourable time of the year for a good passage.† Further, it was only a short journey. A long and tempestuous passage, such as is frequent in Australasian waters, or those of the United Kingdom, are the two chief enemies of horses at sea.

The United Kingdom stands at the head of all countries in affording the highest loss on board ship; in this case the figures represent the actual loss at sea, for they are not vitiated by being burdened by the loss prior to embarkation. Nowhere, perhaps, was greater care shown in the selection and fitting of ships, or in inspection prior to embarkation, yet the results were bad. Among groups for broken periods—which we have hitherto avoided referring to—the results are even worse than the mean table presents; for example: among 2300 remount horses despatched in the winter months of 1899, the loss was 7.45%, and among 26,860 remounts which embarked in 1901, the loss was as high as 7.95%.‡ In connection with this, two causes are very evident, *i.e.*, the character of the weather around our islands, and the unfortunate practice which prevailed of the same vessel touching at two or three ports in the Kingdom for her complement of horses before starting on her voyage. This was an important contributing cause. We shall quote authoritative evidence on this point. Mr. S. J. Graff, Assistant Director of Transports at the Admiralty, in his evidence before the C. of E. Rem., Q. 6144, made the following statement:—

“In the case of five ships which have carried horses, both from England and Fiume, under precisely similar

\* No mules were purchased oversea south of the Equator.

† The route Buenos Ayres to Cape Town is in the neighbourhood of the parallel of 40° S., which will take the ship in the region of permanent westerly winds with a moderate sea. The journey is regarded as a fine weather voyage, in which the wind and sea are astern.

‡ See Cd. 963.

arrangements as to fittings, etc., it will be seen [from tables he handed in] that while the average loss from the United Kingdom was 9.23%, the losses in the same ships, when carrying horses from Fiume, were .97%. The conclusion seems to me inevitable that the fault does not lie with the ships, but must be sought in other causes, and I venture to suggest that the practice of making every ship embark horses at three United Kingdom ports [London, Southampton and Queenstown], whereby the voyage is prolonged four days in its most trying part, must have something to do with the adverse results."

We entirely agree with the conclusions of the Assistant Director of Transports at the Admiralty, not only on account of the loss of time and additional bad weather, but, chiefly, the air stagnation which occurs the moment a vessel ceases to move through the water. Every hour that a ship, with horses on board, is not on the move is a serious matter, as the ventilation is at a standstill. The influences of the time of year on embarkation in this country are shown by a table put in by Mr. Graff—"B," p. 210, C. of E. Rem., prepared for the year 1901. The horses embarked in the United Kingdom during the first quarter gave a death rate at sea of 8.77%. During the Midsummer quarter the rate rose to 10.23%; during the Michaelmas quarter it was 7.22%, and the Christmas quarter 8.98%. It is true that an equal number of animals were not embarked each quarter, but for the first three quarters they were near enough for comparison. The Midsummer quarter comes out the worst, so that the effect of snow, rain, or cold wind, at date of embarkation, is not evident. We must look to the delay in getting to sea as one of the chief, if not the chief, causes of the higher death rate among animals shipped from this country. It is equally apparent in those troop ships which, through not being ready before the horses arrived, had to complete their fittings after the animals were on board, during which time, from personal experience, we can vouch for sickness having broken out in the few hours which elapsed before the ship was able to leave port.

The death-rate at sea was so alarming that greater inducements were offered to secure more efficient veterinary charge, by offering better remuneration; not only was there to be a fixed fee for the voyage, but a sliding scale of bonus per head depending upon the number of animals landed in good condition.\*

These improved terms did not become operative until September, 1901, but they led to, or were associated with, a marked diminution of loss in the North American passage, as may be seen in the following table:—

\* The terms were £50 for the voyage, with the usual first class passage back, and out-of-pocket expense; there was also detention allowances in Africa while waiting for a ship. The sliding scale of bonus was three shillings per head landed, for a voyage mortality under 2½%; a two shilling bonus where the death rate was under 5%; a shilling bonus with a loss less than 7%; and no bonus if the loss was 7% and over.

	NEW ORLEANS.	Percentage
	Horses embarked.	lost.
Apr., 1900—Mar., 1901	36,000	4.67
" 1901 " 1902	62,400	2.34*
" 1902—June, 1902	10,000	1.55

	NEW ORLEANS.	Percentage
	Mules embarked.	lost.
Apr., 1900—Mar., 1901	33,900	2.99
" 1901 " 1902	25,400	1.08*
" 1902—June, 1902	3,700	.70

There is no evidence of the effect of improved remuneration in the embarkation from the United Kingdom, excepting during the brief period April to June, 1902, as may be seen from the following table:—†

	UNITED KINGDOM.	Percentage
	Horses embarked.	lost.
Apr., 1900—Mar., 1901	19,900	5.52
" 1901 " 1902	32,000	7.48
" 1902—June, 1902	6,600	3.60

There can be no doubt that in all cases the whole of the animals proceeding on any given vessel should be embarked at one port and immediately sent to sea.

The mean death rate of 2.67% for mules at sea is higher than one would have expected, for they are more placid and better sailors than the horse. The highest death-rate, furnished by the United States in 1899 (4.11%), is now well known to have been due to overcrowding. The mules shipped from Spain in 1900 also did badly (3.34%); how far that was due to the alleged maltreatment they received before embarkation‡ and how much to over-

\* From a return on p. 319, C. of E. Rem., the improvement in the death rate dates from May, 1901, four months before the extra remuneration came into force.

† It is not permissible to compare a three months' period with a twelve months', but we can compare it with the quarterly rate given in the Graff tables above, for the corresponding period of the previous year, and the improvement is there very marked—3.6% as against 10.23%.

‡ The alleged neglect of the Spanish mules awaiting embarkation at Gibraltar was brought to the notice of the Remount Authorities in London, and the Remount Officers in Spain, by Mr. H. Sessions, F.R.C.V.S., who was sent to Gibraltar to mallein the mules before embarkation. His correspondence was produced before the Court of Enquiry, and we extract portions of it from the examination of one of the witnesses. All his letters were addressed to London, and the one in Q. 3370 also to the Remount Officer at Madrid.

Q. 3196. "I found when I came here [2nd April] a state of perfect chaos, the most elementary conditions of animal hygiene neglected, the animals waiting for the ships unable to lie down, their rations erratic and extraordinary, picking up bran mashes on wet days out of open air gutters. . . ."

Q. 3320. 16th April. "I have had all the mules lying down this week. They seemed very grateful for it, and took full advantage of the rest. Previously all mules through here have had to stand all the time. I have also got them fed three times a day instead of twice, and some rough mangers are being put up. . . . The 88 that came in to-day were going to be tied up to ropes in the open and let feed off the ground. It is very wet and cold, and some

crowding and other causes, cannot in the absence of complete evidence be stated. Fortunately, however, we are not left entirely ignorant, as two ships carrying mules from Spain are specially included in a return shown in Appendix C, p. 329, C. of E. Rem. Each vessel lost over 18% of her animals, from influenza in one case, bad weather and the giving way of ship's fittings in the other. Another ship was detained for three days in Gibraltar Bay "under a roasting sun" waiting for wholesome instead of "filthy brackish" water, and more forage as she had an insufficient supply on board for her animals. See C. of E. Rem., Q. 3272. It is not surprising to learn from the table on p. 320, C. of E. Rem., that she lost 50 animals or 5%. In the same table it will be seen that two other vessels from Spain lost 6%, one 5%, and two others 4% of their animals, though unfortunately the causes are not stated. The Spanish mule is not a bad sailor. Three vessels which left Spain in 1899 lost .14, .36 and 1.77 of its mules respectively, while a fourth, carrying 2249 mules, the largest number of animals on any one vessel during the war, reached Cape Town with a loss of .44%.

they had out were in a bad mess, so I protested and got them under cover."

Q. 3304. 18th April. "I have been in a state of constant and friendly war with many officers, as I think the way the mules are treated is most inhuman and scandalous. After their long train journey, I found this morning that they were tied up so that they could not lie down, although with care they might all have had room to do so. There are another lot of mangers up, enough for a couple of hundred more mules. This will be better than their hunting in the mud for their barley." [It was a two or three days' journey by rail to Gibraltar, during which time the animals were neither watered nor fed.]

Q. 3305. 19th April. "I have tried to get better arrangements made to meet the mules here [San Roque, 7 or 8 miles from Gibraltar], and not to allow them to be left in the train for 12 or 24 hours after arrival."

Q. 3308. 27th April. "You will be glad to hear that the last lot of mules from Madrid were safely stabled by 6 o'clock on Wednesday in very fair condition, instead of being left in the trucks until Thursday, and unfed and unwatered until the middle of the day. . . ."

Q. 3315, 3370. 1st May. "I have very much worried Colonel —, and others." "I got Colonel — on Saturday, and the Governor on Monday, to come and see for themselves the lack of accommodation and muddle in which the mules are. Now orders are out for more room, more mangers, more attention, and I am trying to get all the animals a few days' good food and rest before embarkation, and then to work some more into better stables."

Q. 3317. 6th May. "Only last week I found that for five days the mules had nothing but bran and straw, and as many were out in the open eating out of 'gutters,' a good deal of the little nourishment they ought to get went down the drains. I brought Colonel — down to see it. I was told that the bran was given by orders from the War Office: but I hunted up the Regulation and found it had been misinterpreted. . . ."

Q. 3318. 16th May. "I am glad Colonel Maude came down here, as, about a week ago, I had written to Colonel — a rather strong letter, as I could not get him to finish some work he had promised to get done, and I had asked him to put it before the Governor. I think Colonel Maude thought I was 'right.'"

It is only fair to say that the statements made in the correspondence quoted in the footnote were practically denied, and it is unfortunate that Mr. Sessions was not called as a witness by the Court.

The Court, in paragraph 47 of their Report, deal with the care of Spanish mules in 1900 as follows:—

"Letters were produced showing that a civil veterinary surgeon who was sent from England to Gibraltar to test the mules for glanders, made adverse reports to Colonel — at Madrid regarding the want of accommodation and the inadequate arrangements at that place [Gibraltar], but that officer did not communicate these reports either to the Inspector-General of Remounts at the War Office or to the Chief Staff Officer at Gibraltar."

Nevertheless, the correspondence quoted above shows that, notwithstanding Col. — action, the Remount Authorities in London, and the Military Authorities at Gibraltar, were acquainted with the case, and that the Governor saw the mules, see Q. 3315, 3370. The Governor of Gibraltar at this time was subsequently the President of the Court of Enquiry Remounts, and had that portion of Mr. Sessions' statement which referred to the Governor's visit been incorrect, he could hardly have refrained from so saying.

The opinion of the Court is contained in para. 170 of their Report:

"As to the arrangements made at Gibraltar for the accommodation of mules, the evidence is somewhat conflicting, but although grounds for complaint probably did exist, especially when large numbers of mules had to be detained there for several days, the Court considers that such causes of complaint as were brought to the notice of the Authorities, were remedied as far as local conditions made it possible."

In connection with this opinion it is important to bear in mind that the complaints were made by a civil veterinary surgeon against the military authorities, and that, but for him, nothing would have been heard of them. His notes were made at the time, and there is a realism about them only too familiar to those who have seen the care given to animals on service. Though in para. 160 the Court states Colonel — did not communicate the Veterinary Surgeon's reports to the Authorities at Gibraltar, they admit in para. 170 that complaints were brought to the notice of the Gibraltar staff, and were as far as possible remedied. Mr. Sessions could have been called as a witness if the evidence had seriously been regarded as conflicting.

Mr. Sessions could hardly know that his procedure in writing to London, to the people who employed him, was irregular from a military point of view, and that all complaints should have been made in writing to the Authorities in Gibraltar, but this technical fault was due to his ignorance of official routine, and ought not in our opinion to have carried any weight in the interests of a public inquiry.

The Gibraltar episode is instructive; it furnishes us with an example of a Civil Veterinary Surgeon

endeavouring, without a knowledge of Army routine, to bring the neglect of animals to the notice of the Authorities. He had no status or position; he was sent to Gibraltar to mallein mules, and not to find fault with the conditions under which they were living prior to embarkation. The mouthpiece for such official representation was at Madrid, 400 miles away, and *via* Madrid it must come to the local authorities at the Fortress, if it is to be regarded as official. Mr. Sessions, with no knowledge of official circumlocution, attempted on the grounds of humanity and efficiency, to improve the condition under which the mules collecting at Gibraltar were living. In the first instance he wrote to the War Office, to the people who sent him out. He begins his letter, which is published in full in C. of E. Rem., Q. 3041, by saying that he "took the liberty" of preventing a glandered mule being embarked, and that it was due to the courtesy of the embarking officer that his wishes in this respect were observed. He states that he had no *locus standi* or authority to act, and desired that instructions should be sent to Gibraltar to have him recognised in the matter of the well-being and care of the mules. He even asked the War Office for authority to spend the needful money in getting the animals shod. He begs that he may be informed whether "the officer with the boat" [Military Conducting Officer?] is the final authority as to whether certain mules should be accepted or rejected at embarkation, for as matters stand, he says, he has no position and cannot speak with authority.

In one of his last letters from Gibraltar, where he was being relieved by another civil veterinary surgeon, he asks the War Office that the powers delegated to him [to do the best he could for the mules, to requisition whatever was wanted, and to pay for anything needful] should be transferred to his successor, and concludes by saying that unless the latter receives strong support, "official routine will prevent his doing much for the mules, and they badly require daily attention."

His powers were transferred to his successor, which is evidence, if any were required, that his representations were necessary. He increased efficiency, he saved unnecessary suffering, he took the initiative, he "worried" the local authorities until attention had to be paid to the representations of a man who was not in accredited veterinary charge, but, nevertheless, not one word of commendation escapes the Court of Enquiry Remounts for the measures he adopted, or for the initiative he showed.\* This is the more to be regretted when one remembers the severity of their judgment in the case of those foreign Transport Veterinary Surgeons whose chief cause of failure, as we have seen, was due to want of initiative and adherence to a bad system. We have little doubt that had Mr. Sessions, in the same way as the foreign Veterinarians on the Trans-

ports, accepted matters as he found them, he would have received the blame for the condition of the mules at Gibraltar, and the subsequent losses.

Mr. Sessions is unfortunately dead, but his correspondence, published in the Court of Enquiry Remounts, shows the remarkable efforts he made to bring his professional knowledge to bear in the interests of the public. We consider that these services should have received the recognition of the Court in their subsequent report, in which, it is observed, he is not even referred to by name.

In the Court of Enquiry Remounts is a table (Appendix C, p. 329), showing the ships with horses and mules where a death rate exceeding 10% occurred; the table is up to 31st December, 1901.

Four vessels were wrecked or stranded, in two cases losing nearly the whole of the horses. Six vessels sustained heavy loss through bad weather, in three instances the fittings giving way. On eleven vessels the excessive mortality was due to disease: influenza, pneumonia, strangles, mange and glanders; on four vessels the mortality was due to defective ventilation, heat apoplexy and suffocation; one ship alone losing 24% of her horses from this cause. In several instances the cause of the loss is not given. It will be borne in mind that the above list is only for vessels with over 10% loss; this excludes many where the mortality was nevertheless considerable.

Respecting bad weather and defective fittings, the typical case is the "Rapidan," which left Liverpool with troops and horses in the early days of the war. The Veterinary Officer (Captain Blenkinsop) complained about the flimsy nature of part of the fittings before the vessel sailed, but the Naval Authorities decided she must proceed.\* It is doubtful whether they attached any importance to the objections which, fortunately, were given in writing.

The "Rapidan" left Liverpool on 1st November, 1899, with 484 horses on board. Heavy weather was encountered on the 3rd, and at the same time a fire broke out in the engine room. The engines had to be slowed down and the vessel lay rolling in the trough of the sea. The horses could not obtain a proper foothold, for the battens were too far apart, further, the whole of the concrete surface of the deck was not covered by a wooden floor, and on this the feet could get no grip. The horses slipped up or fell, either forcing the parting bars out of the weak slot in which they were placed, (see pp. 253, 254), or lifting them out of the groove in their efforts to regain their feet. The parting bars now lay as loose planks under the horses' feet and between their legs, the floor battens, already imperfect, were rendered useless, and with every roll the animals either fell or were shot forward against the breast bar. [Some were subsequently found wedged between the stanchions, which had to be sawn away to liberate them]. The strain on the

\* The Court commended or spoke favourably of individuals in the following paragraphs of their Report:—59, 95, 130, 155, 161, 164, 219, 237, 238, 240, so there was a precedent.

\* The parts to which the greatest exception was taken, were the nailed on weak fillets which formed the slots into which the parting boards dropped.



#### IV. PACK TRANSPORT CROSSING SPRUIT.

This photograph is a good object lesson. Note the massive chest on the nearest mule; there is no such pattern in the service, it has evidently been removed from a Boer farm, and when empty is almost a mule load in itself. The rear pack-mule is carrying a service load on the off and an unauthorised load on the near side. The weight of the latter has pulled the saddle over against the withers. The whole load has also worked back, and the near side chest must be wearing a hole in the hip. These are points which would be at once noticed by a good transport officer.

*Photo by Mr F. B. Gresham.*



#### V. BRANDING OXEN.



#### VI. DIPPING BATH FOR THE TREATMENT OF MANGE.

The animals walk along a narrow passage in which they cannot possibly turn; the pressure from behind keeps all in front on the move. There is a sudden drop of six feet just in front of where the leading animal is putting down the off fore, and the next step will find him over his head in the water. There are several yards to be covered by swimming before the landing place is reached.



**I. RAILWAY TRANSPORT.**

Illustrates the difficulties of watering and feeding horses in trucks. The photograph shows a column being moved by rail.

*Taken by Mr. F. B. Gresham, of Newark, late C.V.S.*



**II. STUCK IN A DRIFT.**

An example of a moderate road and a heavy load. Double spans of oxen are in use.



**III. MULE TRANSPORT CLIMBING THE BANK OF A SPRUIT.**

An attempt has been made to improve the road, and the mules may just be seen on the other side of the working party.

*Taken by Mr. F. B. Gresham.*



stanchions was now so great that they "started," and the remaining parting bars then fell out. The projecting French nails used for the fillets produced severe injury. Some horses were kicked to death by their neighbours, others had their necks broken by the halter, or were suffocated by the nose-band pressing on the nostrils as they lay suspended by the head ropes, or had their lives battered out of them. It was impossible to render much assistance; most of the men were sick, while the nails in the boots of those who could get about, gave no grip on the iron-sheathed decks.

As the result of this disaster 166 horses were killed outright or had to be destroyed, over 34 %, and the ship, being once more got under steam, put back to Liverpool with her terribly battered animals. There were wounds on the survivors extending from shoulder to knee, and from hip to foot, and 109 of the worst injured were there put ashore.

The fittings were now strengthened; the slots for the parting bars were made deeper, screws being employed for the fillets instead of nails; the deck under the horses' feet was covered, and a central batten added. On the second voyage they again had bad weather, but no further mishap.

The "Rapidan" was frequently referred to in the C. of E. Rem., and the evidence of the Naval expert (Q, 5401) was to the effect that during the gale a fire broke out in the engine room, and the engines were stopped; the ship not being under control opened out in the trough of the sea, and, as a result, the parting boards of something like 100 horses dropped out, the uprights and everything else remaining. We can offer no expert opinion on the ability of a ship to increase its width without the external plates opening out and the vessel going to the bottom; but it is certain that in the case of the "Rapidan" her parting boards fell out from the causes we have named.\* It was an accident that never ought to have happened, and had the veterinary objections been given attention to by the Admiralty Officials, there seems no reason why the fittings in a vessel lying in the trough of the sea should give way. The work of fitting was done in a hurry, and the ship was not completed even at the time the horses were filing on board; workmen were still on the vessel when she dropped down the Mersey.

Too much is left to the discretion of Naval Officers, † excellent men, but necessarily without

\* Since the above was written, I have been able to obtain expert opinion on the question of the sides of a vessel opening out, and it is to the effect that it is neither possible nor imaginable without destruction of the ship. There is considerable longitudinal strain, which leads to perceptible movement, but any lateral opening could only be due to elastic strain in the beams, and the want of perfection in rivetted joints; it would be less than the eighth of an inch. This ship would have had to open three inches laterally to allow the parting boards on both sides to drop out.

† In December, 1902, when the Expedition was being sent to Somaliland, the diet scale for animals shipped at Cape Town was framed as follows by the Naval Transport

much experience of horses, and none of the violence and strength exhibited by animals in a state of panic. There should always be an experienced Veterinary Officer at the port of embarkation as part of the Transport Staff.\* An equally important matter in horse ships is proper ballasting. The "Rapidan," and many others, were light and stood far too high out of the water, so that in a cross sea they rolled badly.

In the matter of outbreaks of disease, it is evident that the most rigid inspection before embarkation will not detect a case of strangles in its incubative period, nor can the subject of pneumonia be anticipated. Among remount horses influenza, strangles and pneumonia were the most common causes of illness, and with mature horses a disease simulating influenza, together with pneumonia, were the chief causes of loss.

In the following table the cause of death occurring among many thousands of animals shipped is given separately for the United Kingdom and the United States:—

	UNITED KINGDOM. Deaths 2028.† Per cent. to total deaths.	UNITED STATES. Deaths 1245. Per cent. to total deaths.
Pneumonia	60 %	60 %
Strangles	5	5
Gastro-Enteritis	3.2	7
Influenza	2.9	4.5
Apoplexy	2.5	7
Purpura	1.7	8
Septicæmia	1.2	?
Glanders and Farcy	.29	5
Various	25.00	?

It is curious to observe that from both countries, among the fatal cases, the deaths from pneumonia and strangles were identical. Pneumonia furnished by far the largest percentage of deaths.

Ship pneumonia is, as we have seen, the most common cause of death, and its study ought to be taken up. It does not differ materially from the same affection seen ashore, excepting its extreme rapidity and fatal character. In all cases examined post mortem by the writer the lungs were found in

Authority, no reference being made to the Veterinary Service:—

Each horse daily 1 to 2 pints of vinegar,  
½ to 1 lb. of salt!  
½ to 1 lb. of nitre!  
4 lbs. of oats,  
5½ lbs. of linseed.

In December, 1902, the Naval Transport Department had been shipping horses continuously for three years!

\* A ship was passed by the Admiralty Transport Officer at Liverpool for 740 horses which could only carry 700. He had included the hatchways as deck space, so that the horses below would have been hermetically sealed. Forty-three horses subsequently died on this ship from pneumonia. C. of E. Rem., Q. 6127.

† These deaths occurred among 30,900 horses. The numbers furnishing the deaths in the United States table are unknown, but probably 50,000, and include both horses and mules.

a necrotic condition. Some horses are attacked a few hours after starting, but, as a rule, each day produces its crop of fresh infections. On board a ship is a good place to study the question of contagiousness, but in our opinion it was not evident. It seems impossible to escape from the conclusion that foul and stagnant air are the exciting causes.

Overcrowding is best illustrated by a ship, the "Manchester City" (see footnote, p. 253) which left New Orleans in November, 1899, with 2090 mules on board. It took three days to load the ship. Abnormally hot weather was met with in the Caribbean Sea; there was a stay at St. Lucia of 47 hours during intense heat and no air movement; after the ship had been 35 or 36 days at sea it arrived in South Africa, 187 mules having died. The spare places in this vessel were taken up with hay and fodder; the ship's ventilation was also obstructed by forage, and the animals closely packed.\* The weather was unusually hot, a temperature as high as 115° being registered between decks, and it rarely fell below 100° to 98° while passing through the hot belt. On 6th day after leaving eleven animals died, up to this time the deaths had been four or five a day. There were eleven deaths the next day; on the 8th day out the vessel had to lay-to for repairs, and eighteen animals died. She anchored at St. Lucia for 48 hours, and in those few hours 51 mules died. The day after leaving St. Lucia she lost 23, and from that time onward the mortality decreased as the weather became cooler, and the cubic space resulting from deaths and consumption of forage increased. The atmosphere below in which these animals lived was so foul, that the men employed looking after them would not work more than half-an-hour before coming on deck for air. The absolute blackness, excepting for a few electric lights, intensified the evil. At St. Lucia there was neither air nor water movement, so that even the dead animals thrown overboard had to be towed away. This created considerable delay in disposing of the dead still on the ship, which, in such a temperature rapidly became putrid, even their hoofs came off before they could be thrown overboard! Such a condition assists in realising the state of the atmosphere between decks. This vessel was a veritable "Black Hole," her losses were 7.96%. Another mule ship sailing from the same port a few days later than the "Manchester City"—the "Anselma de Larrinaga"—was also overcrowded, and lost 10.57% of her mules from pneumonia, suffocation, or heat apoplexy.

Bad weather, exclusive of pneumonia or the fittings giving way, may kill horses from exhaustion. It must be remembered that during the time the vessel is rolling the animals get neither rest nor

sleep. A vessel rarely pitches to the same degree that she rolls, and, moreover, the movement is slower excepting at the ends of the vessel. It is the rolling which works the evil, and to estimate what it means in the way of muscular and nervous strain it is only necessary to stand in the alley-way at the end of the horse deck and watch the pendulum-like movement of the body. As the ship rolls fifty heads looking towards the roll disappear at the same second of time, whilst the heads of the fifty neighbours opposite, who are looking away from the roll, appear with the same suddenness and precision. The roll in the opposite direction reverses the movement. The feet are the fixed points on which this swaying to and fro occurs. It is not difficult to understand the mortality which took place on the "Monterey" and "Ripplingham Grange," (pp. 258, 259), which were kept for two and six days respectively, rolling outside Durban Harbour, after a long sea voyage.

The cerebral cases, or so called "ship-staggers," are most puzzling. Some happen in bad weather, but they may also occur in harbour, when a high external temperature is associated with absence of air movement. Our knowledge of these cases is very imperfect. Some are, no doubt, reflex, especially those occurring in bad weather, and are due to inability to vomit; others are apoplectic in nature. In any case, a cold douche and fresh air work wonders.

A properly fitted dispensary and a centrally situated hospital are matters of great moment when much sickness prevails. The hospital should be isolated, placed midships, and on the main, or even upper deck. It must be accessible from all parts of the ship. A rule should be made to treat only the simplest cases in quarters. Horses can only be conveniently moved from one point of the ship to another when good large hatchways exist. A small hatchway means a very steep "brow," up which a sick case may be too feeble to climb.

It is easier to formulate improved regulations for long sea voyages than to have them given effect to. More air space is required, that means fewer animals should be carried. We sacrifice safety to numbers. It is no use carrying 600 animals if 50 are to die on the voyage; far better carry 550, and devote the space gained to improving the accommodation and comfort of the others. The air between decks must, by means of fans, be kept in a state of movement from the moment the horses enter the vessel until they leave it. The introduction of fresh air by windsails must not be wholly depended upon for air movement. A wide alley-way, along which exercise can be readily carried out, is absolutely essential; good fittings, more liberal feeding, absolute cleanliness of horse decks, and a proper system of drainage for the decks below water level, are all indicated.

Fifteen per cent. of the horses should be allowed to lie down daily; what this would mean in a long voyage is incalculable. The regulation allowance

\* A Clause in the Agreement was that the shipowners had the right to carry these animals as their own property irrespective of any regulations. They had fitted it up to carry 2349 animals, the Admiralty understood it could carry 2500, but only 2090 were permitted by the Remount Officer to embark.

of spare stalls is five per cent., but it does not contemplate these being turned into two boxes and bedded down with matting; nevertheless, in a month's voyage 60 % of the animals would in this way have secured one day's rest. Eight stalls for every seven animals would give each horse a rest once a week, and if that extra stall costs £15 it is well worth the money.

Prejudice dies hard. The old idea was that the hind shoes should be removed from horses before going aboard; the Veterinary Service before the war pointed out the disastrous results of such practice, and generally speaking its advice was followed.\* The opposite course was pursued with the usual results; the feet were broken away, and the animals useless on landing until the feet had grown sufficiently to carry nails. Horses, however, should not be embarked wearing shoes with calkings. Regular attention to the feet on board is a matter of supreme importance. A large number of horses cannot be embarked fully shod up; there must be many that require attention, and a daily proportion should come under the hands of the farrier for this purpose. The cold fitting of new shoes is not a simple matter, unless they be of the smallest sizes; in the majority of cases a "remove" suffices. Tools, nails and shoes of suitable sizes should be stored on board where they can easily be got at, and not put at the bottom of the vessel.

Mats may be employed for kickers, and there are none to equal the ordinary household article which can readily be suspended at the proper height.

Owing to the close proximity of horses on board ship, contagious and infectious diseases spread with great rapidity. Veterinary inspection at the time of embarkation cannot be too thorough, and all doubtful cases should be ruthlessly rejected.

The use of disinfectants on board ship is minimized by daily cleanliness; all those containing lime are objectionable owing to their action on the horn of the foot. One of the chief proprietary solutions served out during the war was found to be decomposed by sea water on dilution, and in consequence worthless.

The use of drugs on board should be prohibited, excepting under veterinary supervision. They are never needed on the wholesale lines that the laity wish for. Vinegar is worthless, nitre unnecessary, sulphate of magnesia useful under veterinary control. Nothing can take the place of sound management, the keynote of which is the inspection of every horse by the responsible authorities not less than three times a day, which includes an early morning and night visit.

The landing of horses on the almost unbroken coast-line of South Africa was a difficult problem. Cape Town possessed a harbour with limited accom-

modation; Port Elizabeth and East London were practically open roadsteads, and Durban, a port with a difficult bar. At Port Elizabeth the horses had to be slung over the side into lighters below, and tugged ashore. Remarkably little injury occurred as the result of these rough operations, once the system of employing canvas instead of rope slings was introduced, and the tying up of horses on the lighter adopted; prior to this they were loose, and naturally damaged each other.

Horses, after being a month at sea, land with big legs, tender feet, tired and weary. Their first essential is a rest, and their next, walking exercise. During the war, especially the earlier months, they usually hobbled direct from the boat to the train, and the inconvenience and suffering of a long land journey were added to those already experienced.

#### RAILWAY TRANSPORT.

The railways of South Africa are narrow gauge, 3 ft. 6 in., and single lines. The number of cattle trucks available was quite insufficient for the transport of the troops, and was supplemented by the ordinary open goods and coal trucks whose low freeboard was raised by a railing. The trucks in the Cape are short, but those in Natal are long and of iron, especially the coal trucks, which, in that colony, were almost exclusively used as horse trucks. In no pattern of truck did facilities exist for watering and feeding during the journey; with the covered-in cattle trucks it was impossible to do anything without taking the animals out; this was out of the question where speed was everything, and a single line congested. We are now mainly referring to the long journeys undertaken by troops just landed at the beginning of the campaign, who were being rushed up to the front as fast as trains could be obtained; it also applies to the train loads of Remounts being sent up at this time to replace casualties. In fact, it may be said that until about April, 1900, no system could be established for properly feeding and watering on route.

The animals were placed *across* the truck and tied with their heads to the side. The narrow trucks were too small for big horses, which were badly rubbed on the tail and quarters: on curves the animals lost their foot hold, and on inclines, especially those on the Natal railway, the mass in the long trucks gravitated towards the end and exercised extraordinary pressure on the lowest horses.\* Iron shoes on iron floors give no foot hold, and the sand used on the floors gravitated with the horses and played over the iron surface. The injuries occurring between Durban and Mooi River during the concentration on Colenso numbered hundreds, and many were fatal. They were not so numerous in Cape Colony, for the table land is fairly level, but, nevertheless, they represented a considerable degree of inefficiency. No tying up could enable horses to maintain their position; even if the head ropes held,

\* Nevertheless, the Assistant Inspector of Remounts S. A. states in his official report:—"Shoes should be taken off before embarkation: feet take less harm from expansion without shoes . . . it would be far better to ship all animals unshod, and obviate possible injury on shipboard and in landing." Parliamentary Paper, Cd. 963, p. 17.

\* See p. 87 for a fuller account.

the animals frequently fell, and, once down, could not rise. The Cape Government Railway never tie horses up in their trucks, and after a time we followed local practice with far better results. The animals now arranged themselves as far as possible parallel to the line of rail instead of across it, and were thus in a far sounder position to resist sharp curves and shocks in shunting.

It was urged by one witness examined before the Royal Commission (Q.13073), that the trucks used in South Africa should have been arranged on the principle employed for animal transport in India, *i.e.*, the horses placed parallel to the rails in two rows facing inwards, a bar across each batch, to which the heads are secured, and between the rows of heads a space for attendants and forage. By such a system horses can be watered and fed for days without detraining, and men are at hand to render assistance if any animal is in difficulties. This method leads to some loss of stowage-room, but that is more than compensated for by the better condition in which the animals travel, and attention to their requirements. Towards the end of the war some trucks were arranged on this system. It is impossible to over-rate the advantage such a method would have proved during the campaign in the alleviation of animal suffering. Day after day, in the early part of the war, troop and remount trains travelled with no chance of watering and feeding effectively. The truck with a roof and a jumble of frightened animals defeated all attempts at watering and feeding from outside, and to go inside with a bucket was impracticable. The roofless truck offered some advantage in this respect, for men could clamber along the woodwork frame, imperfectly water a few, and put nose bags on those they could reach\* (see Plate iii., Fig. 1). But watering by pails is slow and wasteful, and water was a valuable commodity that could only be obtained at long intervals, and in small quantities. With these trucks no other system was possible than that of detraining the whole of the animals and feeding them on the platform, a process out of all consideration with several trains on a single line, each waiting on the other, and urgency a matter of vital importance.

It was not until the first pressure of work was relaxed, with the advance from Bloemfontein, that it was possible to adopt some regular system with remount trains. Experience had shown that a party of men should accompany every train to assist horses in difficulties, and stopping places about 12 hours apart were arranged where the whole train load could be disembarked, watered and fed, by parties stationed at these roadside depots.

When the line through Natal became the main artery of Remount Supply a regular staging system was projected. The distance, Durban-Johannes-

burg, of 420 miles was divided into four stages; at each the animals were to be detrained and rested for 24 hours. This excellent system, under military pressure, was more honoured in the breach than in the observance, for four days could not be spared for getting animals to Johannesburg. It was carried out wherever possible. The Natal line probably furnished more injuries than that of the Cape, owing to the hilly nature of the country, and the long iron trucks. Horses must have a batten foot hold in a truck, as in a stall on board ship. An iron floor is a hopeless standing.

Projecting bolts were fruitful causes of injury, rough and careless shunting was a frequent source of accident, and steam whistles, sounding in close proximity to trucks, played their share in further upsetting frightened and nervous horses.

Innumerable representations were made by the Veterinary Service of the many injuries occurring in the train, and the military authorities were no less keen on reducing this source of horse wastage. The Railway Companies probably did their best under very trying circumstances, but it fell far short of what was necessary. One witness before the Court of Enquiry Remounts, a senior officer with many months' experience in the Remount Department, regarded the railway as one explanation of the great loss of horses (Q. 3807). He said the horses were occasionally hung up for days, and were treated very much as if they were trucks of coal. Trucks were sometimes detached from the trains without those in charge being informed, and the animals left behind in a siding with no one to look after them. From personal knowledge, we have known water denied horses at a station, as the supply for the engines would have been seriously affected, or, at least, that was the view of the Civil Engineer in charge of the section of the line. Want of sufficient water and food, sometimes an entire absence of both for two or more days, with animals alternately under a blazing sun and cold penetrating dew, rendered it no matter for surprise that trains arrived at their destination with the horses looking empty and worn, and trucks containing dead and dying. Especially was this so with remount trains conveying animals which had passed directly from ship to truck.

Horses which fell in the truck were rarely able to rise without assistance, and many in this way were trampled to death. Particularly was this the case with the debilitated animals returning from the Front, who were found, from experience, to be bad travellers. They had no strength left in their limbs to maintain a foot hold; with every sudden curve in the line and every shock in shunting they fell, and the dead were taken out sometimes by dozens, when the train arrived at its destination. Hundreds upon hundreds\* of these horses were destroyed at their destination, or before reaching it, as being unable to proceed further.

† Nose bags had to be left on until the next stopping place was reached; they were frequently lost, and if put on tightly to avoid this, the animal was partly asphyxiated through breathing foul, moist and heated air, for the canvas is impervious when wet.

\* It would be quite safe to say thousands, for we have known between two and three hundred destroyed from one large consignment.

During the course of this History we have seen how frequently the line of rail was used for strategical purposes. In the De Wet raid of January, 1901, in nine days, 89 troop trains were despatched from Bloemfontein to various parts of Cape Colony bordering on the Orange River, and while this was occurring 27 trains were bringing Bruce Hamilton from Winburg to Bloemfontein: No wonder that, under this pressure of work, animals got very little attention even when travelling with troops. Loaded up at night, starting at dawn, rushed through while daylight lasted and the line safe, left little time for care and attention. McKenzie-Rew\* tells us how, in the subsequent chase of De Wet back into the Free State, ten horses of the Warwick Mounted Infantry were placed in a hermetically closed truck [apparently the type used for carrying explosives† and when the door was subsequently opened they were all dead. The most ordinary care and intelligence would have saved the lives of these animals, at a time when every horse was required.

The most extensive strategical move by rail was that carried out between the 5th September and 11th October, 1901, when the troops were concentrating to repel Botha's invasion of Natal. No less than 32,836 animals were moved by rail. A derailed train caused the death of 25 horses and injured 30 others, but this was the only accident on a large scale. On the other hand, there was a considerable amount of suffering and inefficiency in other ways, for mange spread in a remarkable manner, due, of course, to the close contact in trucks.

When Bethune's column was sent to Zululand in July, 1901, the trucks containing the horses and men became detached, and the horses were left entirely to themselves, and many of the animals died from want of attention. †

The spread of disease through the agency of railway trucks was, doubtless, considerable. There was frequently no time nor appliances for cleaning them; their thorough disinfection in time of peace leaves much to be desired, in war, the pressure is too great and continuous. Nevertheless, the matter was not overlooked; the Railway authorities, both military and civil, did what was possible, and a marked improvement was evident in course of time. Administrative Veterinary Officers on the line had it as part of their duty to inspect trucks as opportunity offered, and make the needful representations. Labour was always a difficulty, and rolling stock cannot be kept idle at a time when every truck is required, and the flow up and down the line has to be equally maintained. Thorough disinfection is skilled work, this is frequently forgotten.

#### TRANSPORT IN THE FIELD.

It may be explained that the transport animals of an Army in the Field are invariably divided into three main groups. *The First Line Transport* is employed for ammunition and water carts, draught or pack mules for machine guns, and mules for technical equipment, such as signalling apparatus, Artillery, Engineer, Medical and Veterinary Stores. This transport is in the care of the regiments or units to which it is attached, and officers of the various branches concerned are responsible for its care and well being. With the mounted branches this offers no difficulty, but the bulk of an army is infantry, and the mules attached to each regiment or brigade are placed under the care of an officer who, probably, has never in his life had anything to do with animals. Under these circumstances the management is necessarily bad or defective. The strain on the first line of Transport is greater than on the others yet to be considered, as it has to keep up with the troops and accompany them in action.

*The Second Line Transport* consists of animals which drag the baggage of the troops and carry two or three days' supplies of food and forage. This transport is not under the management of regiments, but of specially trained transport officers of Army Service Corps Companies. It may consist of both mules and oxen. It follows behind the force, coming up with it towards the end of the day. Unlike the First Line, it does not leave the road or track, nor accompany the troops.

*The Supply Column* consists of mules or oxen, generally the latter, dragging along one or two days' supply of food for the whole Force. It marches behind the Second Line Transport. It is fed by a *Supply Park*, containing three days' rations for men and animals,\* which works to and fro between the rear of the Army and the Advanced Base of Supplies.

The details of the Supplies carried in these various organizations vary according to circumstances, and do not concern us as long as the general principles involved in the employment of transport animals in the Field is understood. For instance, the waggons of the Supply Column are daily getting lighter until refilled; similarly the work of animals with the Supply Park, on their return journey with the empty waggons, is a relief which has to be taken into consideration in judging of the extra marching they perform. The First Line Transport, on the other hand, is always kept at full working strain, and animals showing the effect of this may advantageously be placed under lighter conditions in the Second Line. Mechanical traction will, in the future, revolutionize transport arrangements in the Field, but can scarcely be taken into account during the war in South Africa, where it proved disappointing.

\* "Records of Roughriders," 1907.

† C. of E. Rem., Q. 3813.

\* The number of days varies, depending on the operations. It was seven in the advance from Bloemfontein, but is generally three.

The above is an outline of the organization in South Africa with a large Force; there were modifications to meet the requirements of mobile columns.

It may be mentioned that a team of mules consists of ten animals in a four-wheeled waggon, the load being 3000 lb., and six animals in a two-wheeled vehicle, the load being 1500 lb.

#### MULE TRANSPORT.

The value of the mule as a transport animal, his powers of endurance, his spirit and willingness, have been abundantly testified to in these pages; they won for this splendid animal the admiration of the army. The type of mule we refer to is the small one; the large mule—which, like large horses, we insisted upon importing in the early days of the war,—was not a success; in fact, it may be stated as a general rule that the value of a mule for transport purposes is in inverse ratio to his height. I know of nothing in the way of an animal which, for real "grit," approaches the small mule.

The care of these animals left a great deal to be desired; the creation of an enormous Transport Service necessarily led to the employment of officers with no knowledge of the care and management of animals.\* The few trained officers of Army Service Corps available for Transport Service were almost lost to view, and the management of mules in those Transport Companies where no Army Service Corps officer existed fell largely into the hands of civil conductors. The South African native is an excellent man with mules, but, like all of his class, requires constant supervision. His system of turning mules out to graze was to tie three or four together, and let them roam; the same system was followed when taken to water. It resulted in the strongest having his way, he moved on in grazing, dragging the others from the "bite" they had just found, or when he had finished watering he at once left the stream and the others had to follow. It took months of work to control this iniquitous system, and even at the end of the war it constantly had to be looked for and guarded against. Tying four mules together for grazing is a time-saving process when they have to be driven back to their camp, for the mule is difficult to manage when he has his freedom; but no such consideration should have been permitted to carry weight where the health and vigour of the animals were concerned. Knee-haltering adopted while grazing was a fruitful source of injury, owing to the raw hide used as a rope cutting the limb when carelessly applied. Losses from drowning by watering mules tied together in batches, or knee-haltered, were frequent, and the least reflection should have shown the danger of such a proceeding.† We have no hesita-

tion in saying that the South African method of tying these animals together for grazing and watering purposes, was the chief cause of their rapid deterioration in the early stages of the war in Cape Colony. for a mule thrives on grazing on which a horse will starve.

The daily ration for mules was 5 lb. of mealies, or rather less than three-fourths of what they should have received. The ration should have been not less than 8 lb. daily. As a matter of fact we have repeatedly seen in these pages that they received no rations whatever during some military operations, and frequently only on a considerably curtailed scale. Insufficient food may be taken as the chief cause of mortality among these animals, for, though the question of "condition" arises, as in the case of the horses, it is not so pressing in the matter of the transport animal, with no weight on its back, moving at a steady pace on a track.

The expression "track" is intentionally employed: there are no roads across the veldt. The line followed depends on the season and the nature of the obstruction in front. The most severe part of the road is met with in the dry bed of a river or stream, with its heavy sand-approach and still heavier outlet. The fords have rocky bottoms, but are littered with obstacles in the form of rocks and boulders over which the wheels have to climb. In wet weather, or after rain, the difficulties are enormous. A great deal of suffering might have been averted at drifts and rivers had the principle of extra teams been employed as a regular routine, and not left until the single teams had become exhausted. The passage of a river with almost perpendicular banks means that these have to be prepared for transport, and the newly made track is yielding and heavy. Rivers and streams, wet or dry, were the cause of extraordinary strain on transport animals. In addition, in Natal, hills and mountains had to be climbed. In this respect, the earlier operations in Natal were far heavier than those in the Free State and Transvaal. The difficulties met with on the road have, from time to time, been described in the pages of this history.‡

It is astonishing how well mules maintain their condition, even under adverse circumstances, where they receive reasonable care and attention.† We have elsewhere drawn attention to the absolute importance of the supervising eye of the officer in all matters connected with the care and management of animals. The transport officer's duties are never ending; he is required even more on the line of march than in bivouac. He must see that the pace is properly regulated and animal energy conserved. A steady regular pace throughout, never exceeding four miles an hour with cavalry, and three miles an hour with mixed troops, is fast enough for any military operations. That it

\* At the termination of hostilities there were 40 Companies of Army Service Corps in the Field, with 300 Officers, three-fourths of whom were attached, that is to say, were not transport officers by training, together with 1640 white, and 35,800 native civilians.

† See also foot note p. 25.

• See pp. 32, 33, 75, 76, 86, 92, 95, 96, 100, 101, 102, 103, 105, 153, 155, 157, 170.

‡ In the Evidence taken by the Royal Commission on the War, General Rimington stated (Q. 12,682), he had a team of mules which went through the whole War.



is the pace which kills is an axiom which should ever be before the watchful transport officer. Trotting with loaded waggons is unpardonable. If interval is lost on the road through delays behind, the column in front should halt while it is made good. Up and down his column the Transport Officer should move throughout the march; in no other way can he check irregularities,—such as men riding on the waggons, the abuse of the whip by drivers, the neglect of the brake going down hill, and its removal the moment the point is passed where it is no longer required, the ungreased wheel, so fruitful a source of exhaustion, the chafing of harness,—all these can be seen at a glance, and controlled. To ride at the head of the column looking straight to his front is the last duty of the officer in charge; he might, indeed, be just as well miles away.

The fitness of transport mules depends entirely on the attention to details of this kind; every commander should be as well acquainted with them as the transport officer. In that way, unreasonable calls on the transport would not be made, and the necessary consideration shown for rest, watering and feeding, on the basis of two hours in every four. Those military operations where time cannot be spared to rest and feed the transport are few in number; it is the sacrifice of animals unnecessarily made, by ignorance of requirements, which causes the preventable loss on a campaign.\* Everyone knows that without transport an army is tied to the ground on which it stands. During the War there were several Commanders whose interest in transport was deep and lasting, and their marches have been duly recorded in this History.

There is no animal which returns so much for so little attention as a mule; he has a marvellously economic digestive apparatus which converts the most unpromising looking material into bone and muscle, and it may be laid down as a rule, to which we know no exception, that if mules are in bad condition their management is defective, or unfair calls are being made upon their strength.

The total loss of mules in the war, see p.226, was:—

Oct., 1899 to Dec., 1900	29,113
January to December, 1901	14,433
January to May, 1902	7,853
	51,399

Over 35% of the strength of mules was, as a mean, lost year by year, throughout the war.

The diseases affecting mules do not differ from those attacking horses, and will be considered later.

\* The disgraceful overdriving of animals and overloading of vehicles formed the subject of several Army Orders, they have been reproduced at p.144. Every endeavour was made by the Commander-in-Chief to inculcate humane treatment of animals and attention to their requirements. Even prizes were, as we have seen, offered for competition among native drivers, though they had to be withdrawn subsequently.

#### OX TRANSPORT.

The ox is the transport animal of South Africa, and its management and care are thoroughly understood by Transport Riders and natives generally. The Transport Rider, in the pre-railway days, was a person who undertook the general transport work of the Colonies with cattle and waggons, either his own property, or generally hired. He was, of course, a white man, and his object was to reach his destination with the least possible loss, and by the most direct possible route. Under his skilful management oxen were capable of rendering immense service. As a transport animal, where time is no object and roads are heavy, the ox has no equal. Obedient and willing, endowed with great philosophy, he hauls heavy waggons and immense loads over tracks from one end of a sub-continent to another.

The utilization of the transport of the country in which military operations are occurring is a fundamental principle, and it was known that the ox would be largely employed for all operations in South Africa. There is an immense difference between transport work in peace and that in war, but such differences do not lead to any change in the physiological conditions of the animal; these still remain immutable, and if they are neglected, either from military necessity or ignorance, the penalty is heavy. The difference between the management of the ox and that of the horse is as great as anything can well be, and, with few exceptions, all the military officers at the beginning of the campaign who were responsible for the care and management of this animal were ignorant of the question. Their care naturally fell to the Transport Rider, or Conductor, as he was termed in military organization, and the natives in charge.

No food whatever is carried for oxen; they live on the country, and for this purpose require time for grazing; after grazing they need time for rumination. All experience shows that oxen work badly during the heat of the day, and under peace conditions this time is devoted to grazing and rumination.

The best time for working oxen in draught is the early and latter part of the day, but it is obvious that, under military conditions, such a council of perfection may not be attainable. There is no time so bad for horses and men as in the dark, whereas oxen then do well.

Complete ignorance of the care and management of oxen was responsible for neglect of the most obvious measures for their welfare. For instance, a Commander knows that his animals require rest and time for grazing, and he knows that under military conditions they cannot be turned out to graze at night. Yet these matters appeared to carry very little weight with some, who were satisfied if they covered the allotted distance, apparently forgetting the penalty inflicted upon the oxen. There are periods in every march when a

general halt becomes necessary; there are delays at bad points in the road, drift or river, where waggons can only cross singly and with great delay. Miles of transport may thus be held up. A considerate Commander takes every opportunity for relieving his oxen, which would otherwise stand for hours under the yoke; nor does he deny them grazing if any can be obtained near to the track. In ordinary marches, "inspanning" should be delayed as long as possible, especially where there are miles of waggons, as several hours must elapse before the last sections are able to move off. The earlier sections should be given a start of all other vehicles, owing to the slower pace of oxen, which, under the most favourable conditions, should never be greater than  $2\frac{1}{2}$  miles an hour. In wet weather oxen travel badly, and are liable to become foot-sore. Some consideration must be extended to them under these conditions, or the inevitable will occur.

The various orders which were published by the Commander-in-Chief relative to the care of transport oxen have been quoted on p. 144. No effort was neglected by those in authority to inculcate the principles of humanity in their treatment. It was also pointed out that observance of the rules of marching and grazing should never be departed from excepting under real military necessity, nevertheless the mortality continued, and it became apparent that with oxen, as with horses, less care was taken of them in proportion to the ease with which casualties could be replaced.\*

By attention to the principles of ox management, which are neither numerous nor difficult, and by following the skilled advice of those who all their lives have been mixed up with transport-cattle, a large proportion of the shocking loss of life which occurred in South Africa would have been prevented. It is the staff, as well as the rank and file of the Army, which requires educating in these matters.†

A loaded ox-waggon with a span of 16 oxen, will convey 4,500 lb. of dead weight, on heavy, springless vehicles, over the most unpromising tracks at a steady rate of  $2\frac{1}{2}$  miles an hour—the moment the animals are hustled they become distressed. Four hours inspan should be a maximum at a time, followed by two hours rest and grazing; and eight hours work a day, which, with obstacles and difficulties, will probably amount to fifteen miles, is a fair day's work. Few armies under ordinary conditions are expected to cover more ground than this.

#### THE VETERINARY ARRANGEMENTS FOR TRANSPORT SUPPLY AND LOOT CATTLE.

At the outbreak of war the transport oxen were engaged on the hired basis, the responsibility for maintaining the numbers resting with the contractor. In his agreement were clauses giving

compensation for certain diseases. These clauses in Natal and Cape Colony were not identical. Pleuro-pneumonia was compensated in Natal but not in the Cape. Red-water was compensated in the Cape if a contractor's animals were taken into a red-water district. Very early in the campaign the compensation clauses became a source of financial anxiety, and a veterinary officer was appointed Inspector of Oxen in the Cape (see p. 47), part of whose work was to enquire into these claims and as far as possible check irregularities. Another part of his duties consisted in dealing with outbreaks of diseases; the appointment was made on the representations of Colonel Rayment, Acting P.V.O., whose experience of war was considerable, and who knew the trouble which lay ahead among transport animals, especially cattle.‡ Major Sharp, A.V.D., was subsequently appointed Veterinary Inspector of Transport Oxen, and remained with this Department to the end of the war. The pages of this History give no notion of the amount of good work which this officer carried out.

The system of hired transport is a great convenience for a short campaign, but ruinously expensive when operations are prolonged. In November, 1900, it was decided that the Government should take over from the contractors the whole transport as it stood, and 30,600 oxen were purchased. The unit of organisation of the Ox transport was the Company, and each Company consisted of a variable number of sections, depending on requirements. A section consisted of 10 waggons, each with 16 oxen forming a span. There was a Conductor (civilian) to every section, and a head Conductor to every five sections.

On the Lines of Communication the Headquarters, really Depots, of Transport Companies were located; at these the various sections of transport were held for the efficient working of that portion of the line allotted to it. Spare animals were also kept on charge so that exchanges of weakly animals could be made with convoys and columns. The grazing of the resting animals at these depots and the early removal of debilitated working oxen from columns was an especial duty of the responsible officer at the Headquarters of Transport Companies. The above organisation took some time to establish, and was the outcome of experience as the campaign settled down more and more into that of a Guerilla War. During the large operations such as have been dealt with in 1899-1900 no such systematic arrangements existed, nor were they practicable until the army was in possession of the country.

We have seen at p. 120 that a Transport "Live Stock Recovery Department" was formed on 7th January, 1901. It was charged with the duties of collecting all Government animals strayed or dropped from the line of march, establishing depots for their reception and re-issue to Transport service,

\* See, "Revised Instruction for Transport Organization and Administration," South Africa, Feb., 1902, para. 64.

† See p. 51.

‡ The help and advice given by the Veterinary Department of Cape Colony in this matter, has been acknowledged at p. 47.

and guarding against any cattle being used as slaughter stock which were capable of being utilized by Transport for work. It was impossible to maintain large numbers of debility-animals at the Transport Depots on the Line of Communication, as they ate up all the limited grazing; *Debility Farms* were, therefore, organized. Each of these had a permanent staff calculated on the number of animals present. The veterinary organisation was under Major Sharp, who had a part of the farm told off as a receiving depot, into which all new animals went for 14 days quarantine before being permitted to mix with the other cattle of the farm. These were subsequently branded, classified, and inoculated against pleuro-pneumonia, and later against rinderpest.\* On recovery from this they were turned out with the other stock. The magnitude of this task may be realised from the thousands of debilitated oxen to which this system had to be applied. It was not possible to carry out the work without a technical staff, so Major Sharp selected intelligent men who were trained in cattle diseases and inoculation. They were then treated as Inspectors and received a special rate of pay. These men were entirely under Major Sharp's orders, and travelled about from point to point as required.

*Farms for Supply* purposes were also formed, quite distinct from but possessing the same general principles of organisation as those adopted in the Transport Debility Farm. When the Guerilla War was fully established and extensive clearing operations undertaken, the collection and disposal of loot and dairy stock became an extremely important matter. The loot-stock was drafted either for Transport or Supply, the dairy stock led to the establishment of *Dairy Farms* for the supply of milk to hospitals.† The farms for the above three purposes were located in the Transvaal and Orange Free State only. Twelve farming districts were formed, each under a Chief Superintendent. Each district contained a number of farms, and the total number of these at the close of the war was eighty-six.

The introduction of vast numbers of loot, dairy and mixed stock destroyed the original safeguards created on the debility farms in the way of quarantine; it was no longer possible to carry them out; the numbers were too large to handle, even too large to find grazing for without creating further centres, or, in the case of "supply" cattle, moving them in the direction of the troops where they could be used as food. For the movement of masses of cattle and mixed stock a body of men known as "Cattle Rangers" was organised. They received pay and a bonus for all stock-running successfully carried out for a distance. The men, excepting in a few cases, knew nothing of the work. Rest for the animals, time for grazing and rumination, were either never

contemplated or else neglected. The herds and flocks they attempted to drive were too large for management, the sheep were over-driven and suffocated; thousands died as the result of ignorance. The "Cattle Rangers" disappeared as an organisation, and their place was taken by "Stock Farm Guards" organised under an officer.

The rush of animals with every sweeping movement was not the only disturbing factor: each rush brought disease in with it, and when rinderpest broke out it was evident that it could only be a matter of very short time before all the Government farms became infected. Desperate efforts were made to immunise the animals already at these places, but material did not exist in sufficient quantities, and obviously the working-oxen with the various transport companies had first claim. In course of time all working animals were inoculated, but time and again fresh outbreaks occurred in the spans of working oxen due to the introduction among them of refugee or loot stock which had not been previously protected.

We have seen something of the immense numbers of loot cattle and mixed stock which were brought in by columns, yet in the first instance only a proportion of these found their way into the various farms. Many of the animals were dropped by columns and recovered by the enemy. Sheep were especially difficult to bring in, for they could not keep up with the troops, were unable to cross rivers, and the daily marches were far too long for them. Cattle were lost through being retained by columns and in other ways. As a consequence a Collector of the Military Stock Department accompanied each column, who took over and accounted for the captured animals, oxen, cows, sheep and goats. These suffered from every bovine and ovine scourge, pleuro-pneumonia, red-water, gall-sickness, scabies and rinderpest; among the sheep \* scabies existed to an extent which can hardly be conceived, for towards the end of the war none of the flocks had been "dipped" for two or more years.

In stock of all kinds the winter cold played havoc with animals already starved and overworked; tens of thousands died from this cause. The working oxen were protected by clothing, a condition they were not used to, and one with which we cannot agree in face of the prevalence of skin disease. What they required was fuel within to maintain their body heat, and this was seldom or never obtainable in sufficient quantity. The ox of South Africa knows no other food than grass. We attempted late in the war to make up deficiency in grazing by the administration of mealie meal† and occasionally oil cake, but it was overlooked that the grain-digesting power of these grass-fed animals

\* All oxen inoculated against rinderpest were branded on the near side with a crown brand.

† Agricultural farms were also established for the supply of vegetables and fruit to both the sick and the troops.

\* The condition of these animals was such, that a whole carcase, when dressed, frequently weighed no more than seven pounds!

† The mealie meal was fed off feeding cloths or sacks laid on the ground. This meal being the staple ration of natives, rigid precautions had to be taken to prevent pilfering.

was probably most imperfect, and that under any circumstances a ruminant requires bulk if his digestive apparatus is to work effectively. When no grazing was available during the winter months, a ration of 20 lb. hay was allowed, or 10 lb. if mealie meal (3 lb.) was given, but we have seen, at p. 217, the difficulties in obtaining this supply, even when close to the line of rail.

The number of animals which passed through the loot stock farms varied with the operations in progress. During the last six months of the war, when one would have thought that not a living head of stock remained in the country, there were brought in by the columns a monthly average of 3800 oxen, 10,500 slaughter cattle, and 55,000 sheep.

In the debility farms of the Transport Service the animals died at the rate of 25% to 35% a month.

Among the working oxen of the Transport Companies the monthly death rate before the outbreak of Rinderpest varied between 4% and 8%; during the Rinderpest period it rose to 18% a month. The total number of deaths among transport oxen during the last seventeen months of the war was 125,000, or a mean of over 7300 head of cattle a month.

At p. 143, it is recorded that for the first fifteen months of the war 70,000 oxen had died, been destroyed or captured; for the last seventeen months 125,000 similarly disappeared, or a total of 195,000 for the whole period of the war.

The amount of work done by the Veterinary Service in connection with the Transport Department has never been fully realized for the reason that transport animals excite little interest, and so few really know what is being done for them. The brief account we have given shows the gigantic nature of the task, the marked ability of Major Sharp in conducting the technical side of the cattle work, and the necessity in the future of making some better provision for the care and management of oxen on service.

#### BRANDING.

The indelible marking of all Government animals in the Field is a necessity. In the case of horses the maintenance of army numbers on the feet was obviously impossible; they grew out and could not be replaced. All the horses were directed to be branded on the quarters with a Broad Arrow, and the same order applied to mules and oxen. It has always appeared to us that this practice lent itself to great cruelty, and in the hands of unskilled persons, unused to the application of a red-hot iron to living flesh, it entailed great barbarism and unnecessary suffering (see Fig. 5, Plate iii.). Nor were the brands confined to the Broad Arrow; instructions were issued for the branding of horses on the shoulder with letters indicating their nationality: the object of this was to secure reports on horses at the end of the campaign which should leave no doubt of their country of origin. Later on cattle

were branded with a crown on the side to show they had been inoculated against Rinderpest.

Branding frequently led to sloughing of portions of the skin. It was not realized that any letter which involves an irregular circle, such as a B, isolates a portion of skin which will certainly die if the brand has been severely applied. Every brand should be made with the letters or figures broken as in a stencil plate, even the Broad Arrow, which does not isolate skin, should be broken, for the reason that sloughing will occur at the point where the three lines meet. Brands, of course, may be manipulated by the unscrupulous, but this should not prevent a humane type of instrument being employed.

We are strongly of opinion that with cattle, branding on the horns should have sufficed, and that an animal with a horn cut off should have been regarded as Government property. The distressing scene shown in Plate iii., enacted on tens of thousands of animals, would thereby have been prevented.

The marking of horses and mules in the future need not be more painful than the infliction of a tattooed broad arrow on the inside of the upper lip; for cast animals a line can be put through it.

#### PICKETING.

No method of tying up animals living in the open has yet been devised which is free from objection; the head rope and heel rope are as old as war itself, and both are open to grave objections. Head ropes last but a very short time; it would be interesting to know how many were used up during the campaign, for there were no articles of horse equipment in greater demand. The average head rope is not constructed with any knowledge of the strain and wear to which it is exposed. Only those who have had to deal with a mass of horses, with no means of securing them, can appreciate the helplessness which results from being without head ropes.\* If the head rope is retained it should be of hemp and of such a length that getting around the hollow of the pastern is an impossibility.† A head rope should only be sufficiently long to allow the horse to lift his head to the normal position when standing vertically over the peg or ground line. The horse, for instance, in Fig. 6, Plate i., is correctly tied up, and by no means can a heel-gall from the head rope arise. The next animal to him is badly tied up, *i.e.*, has a long head rope, which, when in the act of turning back to his right position, will in all probability get over the hind heel.

The picket line in all corps which use wheels should be an air and not a ground line, for in this

\* See p. 72.

† The length of a head rope cannot be left to the discretion of the men, as injury is certain to occur from heel-gall. See Plate i, Fig. 5, for the mechanism of production; this is a fore leg, a trifle compared with a gall of the hind heel.

way the risk of heel-galls is entirely prevented. An excellent method of securing cavalry horses is by means of a fore-foot shackle and peg. In this case the head rope is dispensed with. The peg must be of iron, and an iron peg is a clumsy thing to carry on a horse, and if not driven in flush with the ground is a source of serious damage through the animal lying on it. The nature of the soil affects the peg question; in sand it will not hold, in rock it cannot be driven, in ordinary soil it holds well but is difficult to take up, nevertheless, the fore-foot shackle has many advantages.

The method of picketing adopted must be capable of affording security to horses both under ordinary and exceptional conditions. It must be able to stand the strain of panic. Hardly a year passes that a stampede of military horses does not occur, frequently from the most trifling cause, and it happens on service even when horses are tired and underfed. Nothing should lull a commander into a false sense of security,—for the report of a rifle at night, a thunderstorm, or a piece of paper blowing through the lines may be quite sufficient to leave him with no horses in the course of a few minutes.

The true appliance for securing a horse in the open against kicking, stampede, or getting loose at night has yet to be devised. It must be simple, strong, light, free from buckles, readily removed in the dark, with nothing to get out of order through wet and mud, and must not prevent the animal from lying down. It ought not to be impossible to obtain this, and a prize of a thousand pounds would doubtless secure it. No one with a knowledge of injuries occurring on the picket line would consider such a sum as ill spent. The cost of fractures resulting from kicks in a single year during peace would more than pay for it, while the increased efficiency and the reduction of casualties is beyond money value in war. Few people realize what these casualties represent in point of numbers, and that a horse with his hind heel over the head rope, may in a minute or two inflict, in his panic-stricken state, an injury which will take many weeks to heal.

#### DISEASES AND INJURIES.

South Africa is a country of animal diseases, and from the first considerable apprehension was felt in this respect. Nor did it belie its reputation; never again, let us hope, will a veterinary service have such opportunities for seeing contagious and other diseases on a scale which baffles imagination. It is simple to speak of twenty to thirty thousand sick horses a month, but the mind is quite unable to grasp the real significance of these numbers. A horse is allowed three feet of width in the ranks. If, on this basis, the 20,000 sick were formed up in line, they would extend for over eleven miles, and this only represented the wear and tear for one month in South Africa.

In this section it is intended to consider the chief diseases contributing to this inefficiency. It is a regrettable fact that no complete return of sickness for the whole period of the war exists; we are dependant upon fragments—valuable as they are—for an insight into the class of affection which occurred.

The records of 39,400 admissions to Field Hospitals show that every 1000 cases were, in round numbers, built up as follows:—

Debility	-	288
Mange	-	235
Wounds	-	190
Lameness	-	178
Various	-	109
		1000

In this table the proportion of debility appears lower than one would have imagined, but mange and debility were so commonly associated that many cases of debility fall into the skin group.

An important distinction must be drawn between the class of case admitted to hospital and that occurring in the Field. For instance, Horse sickness, Tulp poisoning and other rapid affections would never see hospital, nor, in theory, would cases of clinical glanders or farcy, though thousands found their way there. All the debility cases would not find their way to hospital, only those which had strength enough to leave the Field and to withstand a long journey by train. Others passed direct to Debility Farms under the care of the Remount Department, and in this way many thousands escaped record. Nothing like the number of sore backs occurring would be sent to hospital, the hopeless cases being destroyed on the spot, and the less severe dealt with locally, and so with lameness, fractures, and other injuries. The cases reaching Field Hospitals were those that had passed through the pores of the filter, and it is for this reason that the percentage of cured is relatively high, the mean being 61% among the above 39,400 cases.

On the other hand, we must not lose sight of the fact that had horses and mules been sent to hospital earlier in their trouble better results would have been obtained. In the first part of the campaign they were retained by corps and worked out; matters improved during the latter half of the war owing to orders being issued on the subject (pp. 194, 195), and to the fact that hospital accommodation existed. Defective as this generally was, from circumstances not within Departmental control (pp. 193, 194). There can be no question from a point of utility and humanity that these cases would have been better in hospital than being dragged about the country by corps.

During the year May, 1901, to June, 1902, 11,184 admissions to the veterinary hospital at Middelburg, Transvaal, gave a recovery percentage of 70,\* or

\* I am indebted to Major R. C. Cochrane, A.V.C., for these figures.

some 10% better than the mean of 1901; this represents a saving in one hospital of over 1800 horses. It is unfortunate that the figures generally for the year ending June, 1902, are not available, but there is good reason for thinking that the results obtained in other hospitals during the last year of the war were equally favourable.

In the table (given at p.197) of 24,606 cases—only a fraction of those admitted to hospital during 1901—the death rate was 8.7%, the destructions 26.5%, or a total mortality of 35.2%. The 11,184 admissions to the Middelburg hospital gave a death rate of 4.31%, destructions 21.4%, or a total mortality of 25.71%, a saving of nearly 10% as compared with the mean of 1901.

It is not necessary in this notice that each class of disease should be separately examined, the subject is too vast; the statements must be general, and confined to those diseases which have proved the heaviest source of complete or temporary loss in the campaign. Before taking these up attention must be drawn to a Veterinary Report written by Colonel Matthews, dated 15th July, 1900, when it was believed the war was over. It is published in Parliamentary Paper, Cd. 963, see this History, p. 191. In it he says:—

“There has been notable immunity from contagious and ordinary disease, except glanders . . . . Isolation and mallein test have enabled its spread to be prevented. The numerous—about 500—outbreaks have been quickly suppressed . . . . There has been exceptional freedom from indigenous disease, and in the whole effective of horses and mules (210,000) there have been during the past unhealthy season under 200 deaths from ‘horse-sickness,’ or less than half the deaths that occurred amongst horses [of the civil population] in Pretoria . . . from this disease in the same period.” He adds that the 45,000 mules of the army had “been generally free from disease, and losses by death, except from exhaustion, extremely rare.” “Glanders,” he states, “appeared in numerous instances, but its spread has been prevented.” Finally, the same report deals with oxen, and we are told that the 57,000 “have been generally free from disease.” That pleuro-pneumonia had not been allowed to spread, destruction and inoculation being practised. He refers to cases of “red-water” having appeared, and that precautionary measures were under consideration.

Now this report is an authoritative statement regarding the prevalence of disease among the animals of the army up to the end of June, 1900. It is better than one could have hoped. Skin disease is not mentioned; at this time it had barely begun. Glanders was under control, and good fortune had spared us from horse-sickness during the summer campaign. No reference is made to the existence of Biliary Fever. We are told that the casualties chiefly consisted of Exhaustion and Saddle injuries, and readers of this History will have no difficulty in recognising that the statement subsequently presented to Parliament represented matters as we have seen they existed. There are no tables published with this Report, or the losses from exhaustion and saddle injuries would have proved alarming, but dealing with disease we may say that up to June, 1900, nothing in the way

of epizootic affections had occurred which could not have been dealt with in a short time, had peace followed the capture of Pretoria. The whole of the serious trouble from disease took place during the two subsequent years of the campaign, the seeds, of course, having been laid during the first nine months of the war.

The pages of this History have largely been devoted to a consideration of the organisation which existed for dealing with the sick. There was no organisation worthy of the name, no hospitals officially existed, the sick had to trust to good fortune; in fact, it would almost appear that no sick were expected in spite of the fact of the notoriously unhealthy nature of the country for horses.

We do not intend here to survey the painful history in this respect caused by official neglect, but it is well to indicate where, in these pages, the development of a system for dealing with sick animals in the Field is recorded.

[The letters after the figures indicate the position on the page where the information will be found. The pages are divided into four roughly equal parts, a, b, c, d; the letters follow the text, thus a and b are in the left column, c and d in the right].

Official scheme for the care of sick animals in war, 113b, 114a, 115b, 117a, 123c.

No hospitals provided, 2d, 10a, 113b, 114a, 117a.

Sick and healthy horses brought together in Remount Depots, 2d, 23a, 41a, 113c, 114a, 115b, 116b, 125c, 202d, 205c.

Obsolete regimental organisation for care of sick, 5b, 79b, 83a, 241b.

Sick sent to Remount Depots and Farms, 20c, 41b, 49b, 52d, 58a, 127b, 137a, 202d.

Sick left on Veldt, 57b, 120b.

Sick sent to Rest Camps, 196c, 205d.

Result of no organization for care of sick in the Field, 34d, 41d, 58b, 72b, 79b, 90a, 204a.

Proportion of sick animals with Troops, 32d, 42b, 52d, 54c, 58b, 64b, 65b, 71a, 71d, 77b, 78b, 79c, 81c, 82a, 83b, 84a, 86d, 97a, 100c, 101c, 103a, 104c, 106a, 143b, 145, 158a, 159c, 162d, 166c, 186c, 223d, 227b and d.

No Veterinary Equipment for Troops or Hospitals, 4a, 13a, 28d.

Insufficient staff of Veterinary Officers, 4c, 10a, 27d, 73b, 74b, 85d, 104a, 119a and d.

No subordinate hospital staff, 2d, 193d, 199c, 223b.

Indian Field Hospitals, 10b, 13c, 19d, 29a, 58b, 114a, 115d.

Mobile Veterinary Hospitals, 57c, 85c, 98c, 158b, 196c, 198d, 199b, 223d.

The combatant control of Veterinary Hospitals, 72d, 80c, 114c, 115d, 191a, 223b.

Hospitals removed from Remount control 116a.

Improvised Field Veterinary Hospitals approved, 72a.

Opening of several Improvised Hospitals, 116a.

Badly organised Veterinary Hospitals, 118b, 119c, 197b.

An organised hospital sanctioned by War Office, 196b, 197b.

Hospital construction and organisation, 113a, 120a, 193d,

194b, 197d, 198a, 199a, 223b.

Number of Veterinary Hospitals, 197c, 224b.

Numbers sick in hospital, 186a and b, 197c, 223a, 224b.

Hospital results, 197a, 223a, 275d.

Cost of Hospitals, 224c.

Army Orders relative to sick and injured animals, 120b, 194a, 195b and d.

Numbers sick monthly, 186b, 194a.

Despatch of sick by rail, 117b, 268d.

Advanced Depots for Stores, 20b, 58a and d, 83a.



#### HORSE-SICKNESS.

It is convenient to take this affection first; it was the one of all others which caused natural apprehension to the authorities from the beginning of the campaign. Precautions against the disease had already been drawn up in November, 1899, at the suggestion of the Civil Veterinary Department in Cape Town, prior to the arrival of Lieut.-Colonel Rayment. These instructions contained the cream of colonial experience of this malady, supplemented by the reliable knowledge of Dr. Hutcheon and his officers. There is no necessity to reproduce these instructions which were precautionary measures, and not always practicable under military conditions. We have seen that fortunately the first horse-sickness season was mild, and did not trouble us seriously, but during the two subsequent years 5700 fatal cases among horses, and 2000 fatal cases among mules, represent a part of the toll paid for operations in deadly areas. It cannot be supposed that anything like the full number of cases was ever recorded: on the other hand, many must have been reported as fatal horse-sickness which succumbed to other trouble. The large majority of the above fatal cases occurred in the sickly season 1900-1901\* (the disease lasts from November to May), the succeeding year proving healthier.

We learned nothing about the disease during the war; active operations are not conducive to clinical or pathological studies. Every Colonial has a remedy which, of course, is infallible. The Authorities were pestered by these people to give them an opportunity of treating the cases with their specific. Several of these persons had never seen the disease, but had heard of someone who did so-and-so, and never had any more trouble! The following is an example of the kind: A gentleman in the Cape Peninsula—where the disease is practically never seen—informed the Authorities that a certain Reverend gentleman had been advised by General Joubert that a small piece of assafetida, weighing about 50 grains, should be tied to the bit and renewed every eight days. General Joubert had followed this practice, it was said, and had never lost an animal, but the quantity must not exceed 50 grains, nor be used oftener or less frequently than once in every eight days.

Another method of treatment was distinctly heroic, and consisted of the administration of six grains of strychnia, which acted as an antidote provided the horse had the disease, but otherwise, as the prescriber acknowledged, killed it.

These may be taken as fair samples of the volume of advice offered by interested and disinterested persons. In practice, we relied on preventing early morning and late evening grazing. The use of

nosebags containing disinfectants, of which creosote was largely employed, appeared to be worthless, and rendered the bag unfit for the purpose for which it is intended. The avoidance of low lying ground as bivouacs and camps is obviously not always a practicable condition on service, valuable as it is as a preventive. The administration of arsenic as a prophylactic was highly spoken of by many with experience, and in the case of a patrol into a dangerous belt might be employed, but the wholesale use of arsenic in the Field (see p. 48 of this History) would have led to some deplorable accidents, and further, is not practicable.

#### GLANDERS.

The British Army at Home had been free from glanders for several years before the war, but those who knew something of campaigning were fully aware that this condition of affairs on service could not last long, and that the disease was bound to find its way in through new purchases and other sources. Far less anxiety was felt, however, in connection with this question, as a new agent for diagnosis had recently been discovered which enormously simplified matters, though on the other hand, it had to be remembered that the Officers of the Veterinary Service had had no experience of its employment, owing to the fact that glanders did not exist in the army. Many had never seen a mallein reaction, and, in fact, outside large cities the same remark applied at that time to the practitioner in civil life.

It will be remembered that in order to place the army on a war footing, considerable additions to its strength of animals was necessary. The Reservists, as they may be called to distinguish them from Remounts, came out of large studs in cities, and in spite of the care and veterinary supervision these animals received, the chances of infection from glanders was always present. As it happened this class furnished the first cases of the disease carried by troops to South Africa. The s.s. "Rapidan," whose history we have seen, arrived at Cape Town on 5th December, and reported some cases of glanders among her horses (see p. 13 of this History), and the Reservists in these all came from public stables. We do not know the number of cases of this disease carried to South Africa by Reserve horses, but it was probably small.

The animals required to replace wear and tear among the troops in the field, and those necessary for the transport of the army, furnished the large group of Remounts, and among these cases of glanders were numerous. The number thus introduced into South Africa cannot be exactly stated, but that it was considerable may be judged from the following list which contains the names of only a few remount vessels on which glanders occurred at sea, or among the animals on landing:—

\* During this year no less than 1873 fatal cases alone occurred in the Natal District.

		Horses	Mules	From
1900	s.s. "Alsatia"	—	14	Gibraltar
"	" "Australia"	—	40	"
"	" "Cuban"	—	20	New Orleans
"	" "Montenegro"	—	64	"
"	" "Hortensius"	—	52	"
"	" "Hyanthes"	—	24	"
"	" "Montcalm"	—	78	"
"	" "Royston Grange"	44	—	"
"	" "Politician"	6	—	"
"	" "Milwaukie"	14	—	"
1901	" "Monmouth"	16	—	Fiume
"	" "Montreal"	35	—	New Orleans
"	" "Wingfield"	—	3	"
"	" "Langton Grange"	4	—	" ? "

This list is not carried beyond February, 1901, by which time the outcry regarding the importation of glanders had been so great that increased vigilance at the ports of embarkation was urged. The result of this additional care was soon evident; nevertheless, 35 cases of the disease were received from overseas (exclusive of cases occurring at sea), in one large coast-depot in Cape Colony, between Sept., 1901, and July, 1902, a vast improvement on the previous condition, but still far short of what was necessary. The above facts enable us to understand how it was that horses of the Regular Forces, free from glanders for several years, were infected in the Field as early as April, 1900. (See p. 60).

The third source of infection was that occurring in the country. Glanders was known to exist throughout South Africa prior to the war. Rhodesia, very early in its history, had made up its mind to rid this young country of the pest while still within reasonable limits, and through the initiative of the P.V.O. of the Rhodesian Government, Mr. Sinclair, this was effected before the war. He saw the whole of his work thrown away through subsequent infection by the troops constituting the Rhodesian Field Force (p. 107). Natal also, before the war had, under the organization of Mr. Watkins-Pitchford, secured legal machinery for dealing with the disease; but in this colony it was more deeply and widely spread, and, as this History shows (p. 24), declared itself very early in the campaign, when local troops were raised and horses obtained from all parts of the colony. In Cape Colony there was probably not a single district which could be said to be free from the disease; legislative machinery, owing to Dutch apathy and ignorance, was not only more difficult of adoption, but met with opposition. The struggle of the veterinary as against the farmer element was constant, and would have been even more acute but for the extraordinary personality of the P.V.O., Dr. Hutcheon.

In the Free State and Transvaal the disease, so far as one can judge, was as widely spread as in the Cape. In the Transvaal legislative machinery existed, but the trained staff to employ it did not. In large centres, like Johannesburg, the disease exceeded anything which could be found in other parts of South Africa. The Republican Forces were not free from the disease when they took the Field. Glanders existed in probably all their large

camps, even at the early part of the war (see p. 38); later on, when forced to evacuate their positions, they very rightly left these cases behind for annexation by the enemy.

In spite of local sources of infection it is clear that the main channel from which the army was poisoned in the first instance was from its own remount supply. The troops were operating away from towns, and in a sparsely populated country. On the other hand, the infection of the locally raised forces was obviously due to infection pre-existing in the country, for these troops obtained no overseas remounts, or at any rate, none at the time when glanders was first found in their ranks. March and April, 1900, may be looked upon as the beginning of the trouble in the Regular Forces; at that time the Cavalry Division was infected at Bloemfontein, the Cavalry Brigade at Ladysmith, and the Remount Depot at Mooi River, in Natal. Those who knew anything of these matters were aware that from these available sources the disease must surely spread to other branches of the service, but it was hoped that a life in the open, in a dry atmosphere and with plenty of sunlight, would retard its development, and such was undoubtedly the case.

By July, 1900, the P.V.O. of the Army was able to report that though up to that date about 500 outbreaks of the disease had occurred, these had been quickly suppressed.\* The number of outbreaks is astonishing, bearing in mind the short interval between March and July, and may be explained by the constant influx of material with both overseas and local remounts.

The next point to consider is by what means the disease spread during the war.

The arrival of ship after ship with cases of the disease was a source of grave anxiety; every Remount Depot was soon infected, either from this source or the serious blunder of admitting into Remount Depots war-worn animals from the front. The latter system, we have seen,† was carried out in the face of Veterinary advice from the earliest days of the war, and sealed the fate of Remount Depots.

The introduction of debility farms should, in theory, have prevented this mixing, but unfortunately debility farms and remount depots were at times side by side, or even combined, and this led to the disasters recorded in 1901 (see p. 202).

There were difficulties attached to these matters which can only be understood by those whose imagination enables them to picture the thousands of horses temporarily unfit from debility and exhaustion, for the care of which no provision had been made other than that of a remount depot. The principle was wrong, and this was pointed out before a shot had been fired. All familiar with horse-management did not doubt that tired and debilitated horses would exist after hard work, but no one imagined the numbers would be on the gigantic scale revealed in March and April, 1900, nor would

\* Cd. 963, p. 14.

† See pp. 23a, 84c, 115b, 116a, 125c, 138c, and 202d.

they have been, had the horses been properly fed. The principle of returning war-worn horses to a remount depot to recuperate was radically wrong, and until these places were hopelessly congested no other system was devised. When later the necessary steps were taken to cope with these ever-growing masses of war-worn horses, the remount depots and debility farms could not be regarded in in any other light than a breeding ground for glanders.

The utilization of captured animals before they had undergone veterinary inspection was a prolific source of infection among all animals, for it included not only glanders and mange, but pleuropneumonia. Carelessness in this respect lasted throughout the whole campaign. The animals requisitioned in the large towns of the Transvaal were also grave sources of infection. In future campaigns rigid instructions should be issued regarding horses captured or requisitioned from the enemy, and on no account should they be allowed to mix with the animals of the Force until found free from disease.

The spread of glanders in the Field by ordinary contact cannot be overlooked, though it was probably less than one might reasonably suppose, owing to the nature of the climate (see ante) and the use of nosebags. There is good reason to think that the frequent infection among mules was assisted by the canvas feeding troughs common to each span, though, as we shall note later, these contrivances have their important dietetic advantages. Infection by means of the water supply cannot be disregarded where troughs were used in standing camps, but was less likely to be operative among animals in the fighting line.

The diagnosis of ordinary clinical glanders in the horse gave rise to no difficulties, but it was otherwise with the acute form, both in the horse and especially in the mule. The mule, like the ass, frequently suffers from acute glanders, sudden in onset, with swelling of the Schneiderian membrane, confluent ulceration, stertorous respiration, so noisy, indeed, that the existence of such cases can be detected in the dark.\* Many were subjected to tracheotomy under the mistaken impression that the disease was local. Such cases may not react to mallein, nor is glandular sub-maxillary enlargement necessary. The ulceration seen in chronic glanders is absent, and the pituitary membrane reveals destruction of such an extensive nature that it is no wonder those who saw it for the first time paused in amazement, and wondered what they had to deal with. The acute form in the horse

was not quite so violent in character, but misleading to the inexperienced.

From outside sources, but mainly through the agency of the Remount Department, it became noised abroad that the veterinary service had blundered, and mistaken glanders for a curable disease known to the Dutch as "new sickness." At p. 203 we have seen how gladly the Remount Department accepted the view of the Dutch, and how skilfully they utilized a difference of professional opinion as supporting the existence of some "new disease." It is not intended to convey the impression that all the cases of "new sickness" were acute glanders, but the Dutch farmer is not a pathologist, and anything he had not previously seen in the horse came under the head of "new sickness"; the cases of acute glanders were thus designated. The opinion held by the Remount Service is quoted at length at p. 203 of this History. This Department did not believe us when we told them their depots were full of glanders; they did not believe us when the dangers of their immense debility farms were pointed out, into which streams of war worn and diseased horses were daily poured. It fitted in with their system of farm management to comfort themselves in the belief that if glanders existed "more would be heard of it," and more would have been heard of it had these animals ever been inspected. We need not again travel over this point; the hideous story is related at p. 202, but we cannot dismiss it without a final comment on the evidence given by the Remount witnesses before the C. of E. Rem: and recorded at p. 203. In this we have seen a layman tendering evidence on a highly specialized and difficult subject, criticising the supposed ignorance of the veterinary authorities, and doing his best to induce the Court to believe that in the matter of glanders we had blundered badly. It so happened that before the same Court a veterinary officer was examined; strange to say he was the officer who had condemned as glandered the particular animals referred to by the remount witness, but it is almost unbelievable that he was not asked a question on the subject of glanders, "new sickness," or supposed mistaken diagnosis. The evidence of the layman on veterinary ineptitude stands uncontradicted, and was presented to Parliament!

The number of cases of glanders occurring during the war can never be known. We have seen (p. 276b) that by July, 1900, 500 outbreaks of the disease had been reported, but the P.V.O. does not give the total number of animals attacked, so that the information is robbed of its chief value. Between April and December, 1900, 2000 animals were destroyed for the disease, either clinical or reactors. From January to December, 1901, 12,000 animals were destroyed for glanders, and of these no less than 9000 occurred in the Remount Depots and Debility Farms of Cape Colony (see p. 204). For the first two months of 1902, the losses from glanders amounted to 1300, and beyond that period no evidence is available. According to these figures

\* In the *Journal of Comparative Pathology and Therapeutics*, Vol. xv., 1902, p. 31, Lieut. (now Major) Cochrane, A.V.D., published a most interesting record on "Glanders in South Africa." He mentions the fact that animals presenting no sign of the disease, after thorough examination, might have within three days extensive nasal ulceration and snoring respiration.

This officer, working in a hospital during active operations, cultivated the bacillus, and employed it to ascertain the protective power of mallein against glanders infection.

during twenty-three out of the thirty-two months the war lasted, 15,300 cases of glanders occurred, and this by no means represents the amount of disease existing, for, as will be explained presently, mallein testing during 1901, was mainly restricted to hospitals, depots and farms.

The above figures are sufficient to show that on the termination of hostilities the army was riddled with glanders; there was hardly a unit in which the disease was not present, the occult cases were daily developing into the clinical variety, and from these further infection was constantly occurring.

In connection with the above we have hitherto made no mention of mallein. It is now necessary that our attitude towards this clinical test should be made clear, and, above all, the vastly important lessons derived from its employment with an army in the Field.

When operations began, the scheme which naturally suggested itself for the control of glanders was that employed in civil life, *i.e.*, destruction of the affected and inoculation of those in contact. This was followed out so far as military movements permitted for the first eight months of the war, but by August, 1900, it was evident that not only had we failed to make any impression on the disease, but that owing to the vast increase of susceptible material, and the constant importation of fresh cases, the disease was rapidly gaining ground. An examination of our position regarding the use of mallein then became imperative, and the following conclusions were arrived at.

The employment of mallein during active operations is contra-indicated, as it leads to the destruction of animals in the early stages of infection, which are capable of weeks, or even months of work: long before the disease can develop into the open stage the majority of these animals, at the then rate of loss, will be dead from other causes. As occult glanders is not infectious no risk is run by allowing these animals to live, and the State to obtain some small return for their cost. In substitution for the mallein test increased vigilance was directed to be adopted in regard to inspection. An examination of the nasal chambers by means of a mirror\* was to be relied upon as the chief source of controlling infection, and no animal was to be destroyed on the basis of the mallein test if in good condition and free from clinical symptoms. This momentous decision, a reversal of the theoretically true policy, was never regretted; inspection took the place of mallein, and the wholesale operations of the latter and destruction of reactors ceased.

The above regulation did not, however, apply to hospitals and remount depots, which were left unfettered in their action, as in these places it was desirable to keep the disease as far as possible under control, but the general principles were

nevertheless not lost sight of. It is obvious a hospital could never be kept free from the disease while cases continued to pour into it from without.

We have endeavoured to make our attitude perfectly clear on the question of the employment of mallein during active operations, and to give a precise statement of the policy adopted.

The action of mallein in cases of acute glanders both in the horse and mule, is not so regular as in chronic glanders, for with the acute variety the animal may fail to react,\* in single, double, or triple doses. The rule is that they do react, but exceptions, especially in the mule, are numerous. As the mule is more liable to acute glanders than the horse, it was discovered during the early weeks of the war that reactions to mallein in this animal were nothing like so certain as in the horse. In order to overcome this difficulty double doses for mules were employed. This system obtained throughout the war and, in practice, was found satisfactory, though its explanation must be left to the pathological laboratory.

Not only do cases of acute glanders in both animals react to mallein with less certainty than chronic glanders, but the lungs in both animals may be free from discoverable nodules on macroscopic examination. We suppose that in such cases microscopical examination would reveal the trouble, but it is beyond all doubt that acute glanders may be present in both animals with extensive destruction of the pituitary membrane, without any nodules being detected in the lungs by the sense of touch.† This fact we assume to be the explanation of the differences of opinion held by one or two veterinary surgeons regarding acute glanders and so called "new sickness."

Both horse and mule which may have failed to react to mallein may develop clinical symptoms later.‡

A glandered mule frequently, a glandered horse rarely, may show no sign of local reaction to mallein at the proper period, yet a marked reaction may be present at the 48th hour. In one case in a horse, of which we have a photograph, a nine inch painful swelling appeared at the 48th hour, and the existence of the disease was demonstrated at the autopsy.

The increased dose employed for the mule appears to be responsible for a complication frequently observed in this animal, for swellings very misleading in character may be produced in a healthy mule at the seat of inoculation. This very important statement is based on a large number of observations; some made after the war may be quoted, as the actual figures are available. Out of 1000 presumably healthy mules, 460 were selected to proceed to Somaliland; from such a wide choice none but

\* The want of adaptability of some veterinary officers when this order was issued was very marked. Mirrors in large numbers could not be issued at once. They forgot their own hand-glass was available, and that any reflecting surface, metal or glass, was better than none.

\* Cochrane, *op cit*, notes the same fact.

† Cochrane records the same important point.

‡ Cochrane relates the case of a horse refractory to three mallein testings, in which complete ulceration of the septum existed.

the best were selected. They were then malleined; double doses being employed. Five animals gave what was regarded as a decided reaction, and in 19 others the local manifestation was sufficiently large to necessitate re-inoculation. This was done with a triple dose, and of the nineteen, three were selected as being glandered. Out of this batch of 460 mules, eight were, therefore, deemed on the mallein test to be affected with the disease, and were destroyed. In only four were lesions found, though, of course, it is possible there were microscopic nodules accounting for the reaction in the other four, but the chief point at present lies in the undue proportion of animals presenting local swellings, and yet free from disease. For instance, again quoting from carefully recorded observations, a mule may have a local reaction 11 inches by 5 inches at the 18th hour or later; this may or may not be painful—though never acutely so—lymphatic vessels may or may not run over its surface; the swelling may be tense or baggy and dropsical, and the animal on P.M.E. found free from the disease.

The following sizes of local reaction are taken from among many, but serve to illustrate this extremely important point:  $7\frac{1}{2}$  in. by  $2\frac{1}{2}$  in., 8 in. by 4 in., 10 in. by  $5\frac{1}{2}$  in., 11 in. by 5 in. In all these cases the animals were destroyed and found free from disease on ordinary macroscopical examination. They were destroyed mainly in consequence of the size of the reactions. All the above and similar reactions measured more in one diameter than in the other, they were longer than they were broad; they were frequently dropsical, and jelly-like. If tense and painful, this was probably due to the presence of enlarged lymphatic vessels. In other words, the local manifestation did not present the true reaction of a glanders swelling, which measures much the same in both diameters, and is painful to an acute degree.

This brings us back to the question of dose. Were the double and triple doses in any way responsible for the size of the swellings? We think that they were. It was found experimentally on glandered animals that if a single dose produced a 4 inch reaction, a double dose might give a  $5\frac{1}{2}$  inch, and a triple dose one of 7 inches in diameter. These figures are only roughly comparative though taken from actual observation, but are useful as indicating in the mule that the extent of the local reaction in undoubtedly affected animals did appear to bear some proportion to the amount of material injected. That the ratio is variable is undoubted, for we have seen a single dose produce a  $4\frac{1}{2}$  inch swelling, and a double dose in the same animal a 9 inch reaction.

It must be remembered in connection with the whole of the malleining done in South Africa, both during and after the war, that the operations were conducted in the open, the animals were exposed to the sun, dust, and sources of local infection at the seat of inoculation; but so were the horses, and with these such irregularities were not common. Aseptic inoculation was impracticable, though at-

tempted, especially after the campaign closed, and sepsis might have accounted for these peculiarities in the mule reactions, though, again, the horses were under the same conditions. This view was ever present in the mind of the attentive observer, and we admit that the large pear-shaped dropsical swellings observed in the mule, especially if associated with local lymphatic irritation, were by ourselves attributed to this cause. Why they should have been so relatively common in the mule we, unfortunately, do not know, but that they led to errors in diagnosis is undoubted.\*

At the beginning of the war the employment of mallein was new to the whole veterinary staff; but the rate at which glanders increased, and the large employment of mallein during the earlier months of the war, soon rendered the majority very familiar with its use,† though the mule ever remained a difficulty.

It cannot, therefore, be said that mallein gives as uniformly good results as a diagnostic agent in the mule as with the horse, or with acute as with chronic glanders. There are many pitfalls for the unwary, and infinite judgment is required in dealing with the puzzling percentage of cases which exhibit reactions which are not truly typical.

Lest, however, it should be felt that these remarks are calculated to raise doubts as to mallein being capable of detecting the existence of glanders in the mule, it may be stated that in 109 animals condemned on the strength of the test, the presence of the disease was verified on post mortem examination.‡ These mules, however, needed larger doses and more frequent re-testing than would a similar number of horses. Where mallein may utterly fail, to give a reaction is in acute glanders, and this applies, as previously mentioned, to both mule and horse.

So little is known of the mule in this country that it is thought these notes on mallein testing may be useful in a future campaign, though, obviously, they leave undecided some important features which we feel assured can only be elucidated by the laboratory expert.

A brief statement has been made at p. 279d, of the number of cases of glanders known to have existed during certain broken periods of the campaign. These only tell us that infection was widely spread, but the percentage of animals affected may be got at with sufficient accuracy through the returns of those malleined. Between April and December, 1900, 24,400 horses and mules were tested with mallein, and the general reaction amounted to 8.6%.

\* It would appear to be desirable to determine whether mallein cultivated from glanders of the mule would be as "irritating" to this animal as mallein prepared from the horse.

† Exceptions are indicated at p. 204c.

‡ We were indebted to Lieut. (now Major) England, A.V.D., for the heavy additional labour this research entailed. It was carried out at the Station Veterinary Hospital, Kroonstad, during one of the most active phases of hostility, and lasted three months.

The majority of the tested animals (15,900) were remounts; 6000 belonged to the Rhodesian Field Force (see p. 107c), and the balance of 2500 represented hospitals and units in the Field. The reaction percentage of these groups can be given:—

Rhodesian Field Force	2.45 %
Remounts	5.3
Units in the Field	7.7
Veterinary Hospitals	15.7

During the next year, January to December, 1901, 28,500 horses and mules were tested; the average percentage of infection was 16, or double that of the previous year, and grouping the units we shall learn where the increase in infection lay.

From	Reacted
Ships and Remount Depots	5.2 %
Units in the Field	6.7
Animals in Hospital *	19.0
Remount Debility Farms	55.0

The table tells us that the two chief depositories of the disease were Remount Debility Farms and Veterinary Hospitals. The infection of the latter is legitimate, they are intended for the reception of sick; but Debility Farms were for the purpose of resting and recuperating war-worn but otherwise healthy animals. The above figures for Debility Farms are known to be incomplete, but they give some notion of the degree of infection. During the period under review, every second animal on the Debility Farms of Cape Colony was affected with glanders in either a clinical or an occult form!

The actual percentage of cases of the disease in Remount Depots and on ships remained at the same point that it occupied during the previous year. It ought to have been lower, for there was much more care taken in the inspection of over-sea remounts, and it is probable that it was lower, and that some of the returns of debility horses were mixed up with those of remount animals. The troops in the Field showed a slight reduction in the degree of infection, but this was due to the better practice of sending the sick and exhausted earlier into hospital. As a consequence the hospital rate was higher in 1901 than in 1900.

It is unfortunate that in the above figures of general infection we are unable to differentiate between horses and mules.

The termination of the war found 161,400 horses, and 93,900 mules and donkeys on the strength of the Army in South Africa,† and the first steps to reduce expenses were directed to getting rid of all surplus animals. How they were disposed of will be mentioned in the section on "Demobilization," but we can anticipate the story by saying part went

to a department known as the "Repatriation," charged with the duty of restoring and restocking the devastated provinces, part by sale to private individuals, and the balance was retained by the Army of Occupation.

Peace came suddenly, and the stock of mallein in hand was quite insufficient to test more than a small proportion of the animals to be disposed of. It so happened that if famine was to be averted the agricultural operations could not be started too early, nevertheless, the Repatriation Department was aware how deeply the army animals were infected with disease, and they hesitated to spend their funds on glandered animals. \* Forty thousand doses of mallein were at once cabled for to England, and in addition, an order for 10,000 doses a month until further notice; but mallein takes time to prepare, and, meanwhile, the Repatriation Department was clamouring for mules and horses, but especially mules. The question of price for these animals created a difficulty between the civil and military departments, which caused a delay favourable to mallein operation, but the stock of 10,000 doses in the country was a mere drop in the ocean, especially with double doses for the mules, and finally large numbers of animals had to be taken over without being tested. These were drafted all over the country and carried glanders with them. Whole teams disappeared, and a bitter cry from the Repatriation Department resulted. Heavy sales to private individuals in the Cape were also effected, the animals being inspected as far as possible, and every care taken to avoid clinically glandered animals being sold, but complaints from purchasers soon poured in. An infinity of trouble and endless correspondence occurred with the various Civil Governments, who naturally viewed with alarm the wholesale distribution of war-worn and possibly diseased horses. Their anxiety was reasonable, for to them fell the work of clearing up the trouble; they pleaded in vain for the mallein test to be applied to all animals sold. The mallein, as we have seen, did not exist; even had it been on hand the skilled staff for applying the test was wholly insufficient for the number of horses to be dealt with in a reasonable time, and so the animals were sold without being tested.

Looking back on the whole transaction it is difficult to know, under the pressure of reducing expenses and the urgency with which the animals were required by the Repatriation Department, what other course could have been pursued. It was bad, but it was the choice of two evils—famine in the Free State and Transvaal or glanders among the agricultural stock. Over 100,000 horses and 31,000 mules were sold without being tested, or rather to no greater extent than some 25,000 doses of mallein placed, at one time or other, at the disposal of the Repatriation Department admitted of. By about September mallein began to arrive in large quantities from home, and animals still await-

\* In one area of the war Cochrane found that out of 12,540 admissions to Hospital between March, 1901, and May, 1902, 2.5% of the animals were affected with occult glanders.

† See p. 229a for the discrepancies which exist in the enumeration of the total number of animals on 31st May, 1902. The Remount Department placed it at approximately 142,149 horses, 76,839 mules, 12,864 donkeys.

\* See p. 229a.



ing disposal were dealt with, but the bulk of the sales were over, and the damage done.

There still remained for testing the horses and mules of the Army of Occupation. This had been provisionally fixed at 20,000 horses and 25,000 mules, and by October the work was systematically taken in hand. At this time the amount of glanders should have shown signs of shrinkage, for inspection had been constant for months, with the object of eliminating all clinical cases, yet some 3000 mules, tested for the Repatriation in the month of October gave, as the result of the mallein test, 26% of reactors, while 28% of clinical cases were picked out. Whatever doubt may be cast on the accuracy of the figures dealing with reactors there can be none so far as the clinical cases are concerned, which revealed a degree of infection almost beyond belief. The mules had been huddled together for months awaiting disposal, and under these circumstances infection was readily ensured; they belonged to the Repatriation, who refused to take them over until tested. Their care was repudiated by both sides, with the result that barely a half survived.

The amount of disease among the horses and mules of the army awaiting testing was naturally much less than this; they were under proper supervision and inspection, and clinical cases were eliminated as fast as they occurred. When mallein operations took place the following results were obtained:—

3000 horses gave	7% reactors
5000 mules „	5% „

These numbers are probably large enough to establish the proportion of latent cases existing in the Army of Occupation before the final clearing up of the disease was begun. It is unfortunate that the figures for the entire operations are not known.

The task now in hand was a gigantic one—20,000 horses and 25,000 mules had to be tested, and the reactors eliminated; body temperatures were not available as the animals were all in the open, and the season summer.

The principle adopted in Cape Colony was as follows:—Each unit was separately taken; it was enjoined that no hurried measures were to be adopted, and two experts in malleining,\* in addition to the officers in veterinary charge, were to be employed. For a month previously nothing was to be done but systematic inspection; double the ordinary interval was to be given on the picket line, each horse or mule was to maintain its position on the line, and every animal was to have its own nosebag clearly marked with its number. No inspection of the nasal chambers was accepted that had not been carried out with a mirror, and 150 horses a day was considered the effective limit for mirror inspection. The watering arrangements were rigidly supervised; if from a trough, no suspect was permitted to be watered excepting by means of a bucket which

bore its number. If a stream was the source of water supply suspects were watered last. At the end of a month malleining was to be carried out, not more than 100 horses being submitted to the test at one time. The results of this were to be grouped as follows:—healthy, suspicious, gravely suspicious. The two last groups were to be isolated and on no account mixed; the suspicious and gravely suspicious groups were to be at once re-malleined.

Instructions were issued regarding the disinfection of the site of inoculation and of the needles between each operation.

The results were to be interpreted by the local reaction and character of the swelling, 3½ inches in diameter being regarded with suspicion. In all cases of doubt the animal was to be given the benefit, and a fresh inoculation made on the opposite side. Animals were not to be condemned until the 24th hour, and in case delayed reactions appeared the group was not to be dispersed for three days.

By March, 1903, nearly a year after the war, the disease was well in hand, but in spite of the precautions taken the chances of infection were so numerous, due to the widely spread character of the disease, that it was impossible to eliminate all cases at once. Between April, 1903, and March, 1904, 114 horses and 51 mules were attacked, mainly amongst the cavalry regiments and remount depots, but the disease was so well in hand that its obliteration was within sight. In the following year, *i.e.*, March, 1904, to April, 1905, 31 cases occurred, mainly in remount depots, and the disease then died out. It was thus three years from the date of peace before a clean bill of health could be given, not, perhaps, a long time considering the wide-spread nature of the disease and the fact that glanders was only one of four plagues being fought at the same time, for the army was full of mange, epizootic lymphangitis and specific ophthalmia.

The persistence with which the disease clung to remount depots can readily be understood, for in these places stabling existed. What was too good to destroy was dealt with by burning the walls, scorching the wood-work, and replacing the earth floors after previous burning. The wood-work was then given a coat of creosote, but such work as this requires constant skilled supervision to ensure thoroughness, and with the extraordinary pressure of work and a small veterinary establishment it was not possible to detail special officers for this duty.

A few words are necessary regarding the source of mallein supply. During the first half of the war mallein was obtained from the Royal Veterinary College, London, and from Colonial and Foreign sources. The two latter were as a rule unsatisfactory, and certainly contained some irritating substance; so violent were the reactions in the case of the foreign mallein that an investigation was made as to it possibly having been tampered with, but nothing resulted. No officer wished for any-

\* Captain (now Major) Wilson, A.V.D. and C.V.S. (now Captain) Jelbart, were the officers selected for this duty.

thing but the London College mallein, and for the remainder of the war this was entirely depended upon.

The amount of mallein sent to South Africa during the war is not uninteresting.

From	Doses
Oct., 1899, to Dec., 1900	101,500
Jan., 1901, to Dec., 1901	33,200
Jan., 1902, to Dec., 1902	135,800
Other sources	10,000
	<hr/> 280,500

One final point may be referred to: it seems incredible, with such wide-spread infection as the figures for 1900-02 represent, that the whole force was not destroyed, including many of the men. For this the climate is responsible, sunlight and dryness sterilized where moisture would have maintained vitality; discharges which would have retained their virulence in Europe were rapidly killed by desiccation, and this, no doubt, was a helpful factor in the campaign which was subsequently undertaken against the disease.

The occasional death of men from glanders, in the Field, might readily escape detection, that is if we may judge by the fact that in a city like London there is evidence to show that it was not infrequently overlooked. Nevertheless, considering the number of men engaged and the enormous extent to which glanders existed, it seems impossible to believe that had the disease occurred amongst them it would have remained indefinitely unidentified. The risk of infection one must believe to have been considerable. Sores on the hand, scratches and injuries, blistering of the face from the sun, the absence of cleanliness, are conditions for infection which it would seem impossible to improve upon, yet we believe no case of the disease was reported among the troops nor among the natives of the transport.

#### MANGE.

The number of cases of mange occurring in the army among horses and mules exceeded that of any other disease, there were tens of thousands of cases. We have seen, at pp. 13 and 19, that we took sarcoptic mange to South Africa with the 6th Dragoons, but this, of course, was not the only nucleus of infection, for we imported it with remount animals and also contracted it in the country from affected horses left behind by the enemy.

Mange, however, gave no real cause for anxiety for the first few months, though it was known not only at Naauwpoort in 1899, but at Modder River in December, and Sterkstroom in the following February, the latter cases being derived from Remounts issued at Queenstown. It was not until June, 1900, that the matter was seriously heard of (see p. 83b), and this is borne out by the report of the P.V.O., written during that month (see p. 276b), in which no mention of the disease is made. By the following September matters were so serious that a

circular was issued notifying the prevalence of mange in the army. This instruction directed the frequent inspection of units, the non-transfer of doubtful cases to other regiments, the segregation and treatment of the affected, and the destruction of those obviously useless. The disease had secured a hold which it was evident would not be relaxed during the operations, and later on, it is safe to say, that hardly a single unit was free from the affection; it was rampant in remount depots and debility farms; it affected horses, mules and oxen. It could not be excluded from debility farms, but Remount Depots were infected by taking in horses from the front (see p. 138c), and by the acceptance of cases from overseas.\*

In the first instance it was difficult to cause those in authority to take a serious view of matters. This may to an extent be explained by the fact that skin disease among horses in South Africa was not regarded by the inhabitants with apprehension, for colonial horses in that country are liable to an affection attacking the back, loins and withers, which, in its clinical features resembles mange, and yet such cases are spontaneously curable when the winter coat changes. The Burgher, from observation, knew it was not contagious. We have no doubt whatever that these facts explained why the representations of the veterinary service were not taken seriously. On 10th August, 1901, a year after mange was known to be widely spread throughout the Force, the Inspector of Remounts, South Africa, wrote as follows to the War Office†:—

"— by the way, you must not be alarmed at mange in this benighted land, nearly every horse in Government or civilian hands which is left on the veldt in winter gets mange; the inhabitants take no notice of it, and it goes with a new coat. We put them through a disinfectant bath which kills it in a few times."

We have referred to the above correspondence at p. 203 of this History in connection with mange on Debility Farms, but its importance, as representing the opinion of an officer closely in touch with the Commander-in-Chief on all horse questions, necessitates its repetition in this section. It must have had the effect of allaying anxiety, and of neutralizing what would naturally be considered the alarmist representations of the veterinary service.

\* The following Remount ships brought mange to South Africa:—

	On	From
"Armenian"	1 Sept., 1900	United Kingdom
"Englishman"	21 Dec., 1900	" "
"South Australia"	22 April, 1901	" "
"Mechanician"	21 June, 1901	New Orleans
"Tactician"	23 June, 1901	" " (Mules)
"European"	11 Aug., 1901	" "
"Cornwall"	24 July, 1901	New Zealand
"Morayshire"	26 July, 1901	Australia
"American"	26 Aug. 1901	New Orleans

This list could be extended, but it sufficiently evidences the way in which remount depots were regularly infected from over sea.

† C of. E Remnts., Appendix F. p. 368.

As a matter of fact, the skin disease affecting our army was true parasitic mange of two varieties, the surface parasite and the burrower, and we never got rid of it until the war was over.

The sources of infection during war are many. Not only were cases of the disease necessarily kept in the ranks, but animals suffering from mange, left behind or captured from the enemy, were freely used and placed amongst our own, and at first, clean animals. It is impossible where blankets are used to prevent infection from spreading, as the same blanket may not be used for the same horse on two successive occasions. Saddle-blankets and saddlery were taken from the affected and placed on fresh horses free from the disease, without any disinfection of the equipment being possible. The men carried the parasites from horse to horse and the trucks in which the animals travelled were prolific sources of infection. Given an outbreak of mange on service or on board-ship, we know of no practicable method by which the spread of infection may be prevented. In saying this it is not intended to convey the idea that no efforts should be made. The rapidity of spread will be considerably lessened by adopting such precautions as are possible in war.

The association of skin disease with debility was a very marked feature, not always the result of cause and effect. A well-known Cavalry Commander regarded debility as the cause of the disease, and believed that horses in good condition could not contract the affection when exposed to contagion. He accordingly did not hesitate to place his own horses in a stable he knew had been occupied by affected cases, and in this way purchased a lesson in the contagiousness of the disease which at once rendered him a whole-hearted supporter of the veterinary view.

The difficulties of dealing with an outbreak of mange in time of peace, so as to guard against the spread of infection, are so considerable that we have no hesitation in saying it is by far the most difficult epizootic with which we have to contend. In war not only is it impossible to control effectively, but the essentials for treatment—isolation, clipping and dressing—are impossible in the Field, and only partly capable of realisation in Stationary Hospitals and Standing Camps. Clipping machines are always a difficulty; frequently of defective material to start with, they are further highly tested by dirty coats and unskilled operators. In fact, for hospital purposes nothing should be used but the power machine, of which there should be numbers, depending upon the size of the hospital, with an ample supply of spare parts, especially blades. Chemical science ought to be able to provide a depilatory which would do away with the necessity of clipping. What an effective agent would mean in the saving of time and labour in a large hospital is incalculable.

A place for clipping should be set apart in Field Hospitals and all hair burned.

The application of dressings needs a large staff of subordinates, but it ought not to be beyond the resources of mechanical skill to arrange for the thorough application of dressings on the same principle as hair brushing by machinery. Dressings are worthless unless rubbed in, and the necessary labour for their application to hundreds of cases is never available at the moment it is most urgently required. The history of the hospitals in South Africa largely centres around the difficulty in obtaining labour for working them, and this will always exist if we depend upon the policy of obtaining local labour for such purely technical requirements as are embodied in the duties of a Hospital Dresser.

The futility of attempting the treatment of mange without a preliminary clipping was over and over again demonstrated; it is worse than useless, for the dressing is of no value and prevents the subsequent clipping of the coat.

For the purpose of applying dressings on a large scale without hand labour the erection of baths, on the principle of "sheep dips," was undertaken. Most of the large hospitals in due course possessed their bath, but the process of obtaining them was slow, as engineer labour, as we have already seen, was not available. The bath was of such a depth that the animal had to swim for a certain distance. Horses did not take kindly to them, and unless arranged as shown in Fig. 6, Plate iii, a good deal of rough handling resulted. As a means of rapidly "dipping" a large number of horses it is of undoubted value, and we place ourselves on the side of those who believe the bath to be a useful adjunct to a hospital. There are many experienced veterinary officers who are opposed to their use, especially in winter, when the shock of dropping into cold water was found to react injuriously on the debilitated. Nevertheless, it takes a long time to dress two hundred cases of mange by hand, while that number can be put through a well constructed bath in a few hours. Sarcoptic mange in the equine is unaffected by baths; such cases must be hand-dressed. It is probable that the value of baths is entirely confined to psoroptic scabies, and that better results would have been obtained had its use been limited to this variety of the disease.

A good bath for disinfecting saddlery and clothing can be made in the Field, by digging a large saucer-shaped hole in the ground and placing in it a sail cloth, such as is used to cover forage or other stores. A bath holding some thousands of gallons of fluid may thus be prepared, and this should exist in all Stationary Hospitals for dealing with clothing and line-gear of mange cases.

Our personal experience was that in the treatment of mange, it was impossible to make a rapid impression where body clothing was allowed. It seems hard on the animal to remove the coat in winter and leave it without body clothing in the open, but experience justified the practice. No

horses died from exposure except such debilitated cases as would have died under ordinary conditions on a wet or cold night. It was, in fact, owing to the experience thus obtained that we found how well animals did without clothing in the open, provided they were well fed. Good feeding is essential in the treatment of mange combined with debility, and the improvement in condition of both horses and mules was not appreciably retarded by the complete absence of clothing. The essential point, however, is that it did them no harm to live in the open, clipped and without blankets, and that was the outcome of an experience of some thousands of cases.

As to the local treatment of mange, it may be safely said that there is no known specific. Everything was tried, and a large measure of success was obtained by all methods of treatment thoroughly carried out. It would be unprofitable to enter into the advantages and disadvantages of each agent so used, but we may broadly indicate that the use of "sheep dip" is worthless for sarcoptic mange; that oily dressings cake and clog in the open; that some of the oils oxidize to such an extent as to form a hard painted surface impossible to remove, and beneath which the disease is spreading vigorously. Ordinary oil, such as linseed, besides drying and caking, has the objectionable property of irritating; this is generally due to adulteration with mustard oil, which inflicts the most acute suffering for a short time after application. Lard oil is bland and unirritating, but difficult to obtain in large quantities. Paraffin and soap solution dressings were largely used, and in skilled hands gave excellent results in psoroptic, but not sarcoptic, mange. The effects require watching, and the mixture frequent incorporation during its application to ensure that it remains in an emulsified state, or separation occurs, and the paraffin blisters.

Major Blenkinsop was responsible for the introduction of the paraffin treatment. The proportions employed by him were as follows:—Two parts paraffin oil, one part linseed oil, two parts soap solution. The preparation of the mixture may be noted. Half-a-pound of soft soap was dissolved in a gallon of warm water; the oil and soap solution were then mixed, and lastly, the paraffin added, the whole well stirred to form an emulsion. The dressing was applied with a body-brush, and again every third day. The animal should be wetted as little as possible, only sufficiently to remove the matted dressing: this the soap enables to be easily done. When the skin is thoroughly dry the dressing is re-applied. The length of period under treatment was about fourteen days.

In chronic cases of the disease, Blenkinsop found that a modification of the above was advantageous. The animals having been washed with a solution of creolin or Jeyes' Fluid were, while wet, sprinkled with pure paraffin from a drop bottle (a quill through a cork), and the oil wiped over the surface with a pad of tow.

Baths of chloride of lime gave good results, but left the skin harsh, and caused irritation if not properly diluted. When applied by hand the men's fingers soon suffered unless precautions were adopted. Baths of corrosive sublimate or arsenic were employed, but appear to have failed to give the best results.

For the treatment of sarcoptic mange, and for those preferring the orthodox greasy dressings and sulphur, a bland unirritating vehicle is necessary, and lard oil meets the requirements; there can be no doubt that the use of common oils should be avoided.

In spite of the difficulties of treating mange during active operations the larger and better equipped hospitals showed good results.

During 1901 the Veterinary Hospital at Johannesburg cured 70% of its 5000 mange cases; in Cape Colony Hospitals, 72% returned to duty out of 4000 admitted; of 27,300 cases in Remount Depots and Debility Farms, treated under Major Blenkinsop's directions during the last ten months of the war, 74% were cured. These figures, collected by different observers at widely different areas of hostilities, indicate that under the unfavourable conditions which prevail in war, including the delay in getting some cases until they are frequently past recovery, or complicated by debility, good veterinary management is capable of returning from 70 to 74% of mange cases to duty.

It may give some notion of the ravages of the disease when we state that it took two and a half years after the war was ended to free the Army of Occupation from mange. The delay was not due to want of thoroughness in treatment, but to recurrences of the disease on the same animals, and to re-infection from buildings and soil.

#### LICE.

Thousands of horses were affected with this parasite; fortunately they do not lead to a condition of inefficiency. Their origin is obscure, and one cannot be surprised at the old notion of "breeding lice," after witnessing a large army of previously clean men infected in a few weeks. Men suffered more than horses from this disgusting pest, and when it is borne in mind that there is no interchange of clothing or blanket in the Field, it is remarkable that infection is so rapid and general.

The origin and spread of this disease has never, we think, been satisfactorily explained. It is not derived from the horses, for not only is the human louse distinctive, but the infantry were infected to an incredible extent. It is astonishing that so little reliable knowledge exists regarding the genesis of this common affection. If men, in time of war, could be kept free from lice, and horses from mange, what untold comfort would result to both!

#### EPIZOOTIC LYMPHANGITIS.

On 30th November, 1900, Captain (now Colonel) Blenkinsop found at Johannesburg two mules and a horse affected with a disease "showing symptoms of glanders, but I am suspicious of ulcerative lymphangitis, known in Syria and Egypt as *Sauraga*." \* He had the animals inoculated with mallein, and they all reacted. This was unfortunate in one respect, as, for the time being, it appeared to settle the question; we now know, of course, that these were cases of mixed infection, and that a mere accident prevented the existence of the disease being then declared. About six months later a report came from a Remount Depot in Cape Colony that some cases of pyæmia, previously cured, had broken out again. It was the recrudescence of these cases which first drew serious attention to the question; the civil veterinary surgeon in charge was emphatic in not regarding the cases as being farcy, owing to the negative mallein reaction. But at that time we had ample evidence to show that glanders and farcy in the mule might not react to mallein, and the cases were accordingly dealt with as if glandered, and destroyed. During the remainder of 1901, cases of "farcy" not corresponding in their clinical features to true farcy, and not reacting to mallein, were met with more frequently, and affected both horse and mule; throughout the early part of 1902 these became still more numerous, but it was not until after the war had ended that it was possible to take the matter in hand for investigation. Dr. Thieler was then able to show that the discharge from these cases always contained the cryptococcus of Rivolta. It was epizootic lymphangitis, the *sauraga* of Egypt, which had been steadily extending for eighteen months.

The disease had previously been unknown in the Transvaal or Free State, but it was known in Cape Colony before the war, where, Dr. Hutcheon † tells us, it was called "Tick Farcy."

It was not until a year after the war ended that matters became extremely serious in South Africa. No less than 455 cases of the disease occurred during 1903-04; and so widely spread had it become that only seven units in the whole of the Army of Occupation were free from the affection. Further, it was increasing; the number of cases at the end of the year was double that at the beginning. While this disease was spreading glanders was decreasing. The campaign against the latter affection was, by the middle of 1904, an assured success, and lymphangitis was at once taken in hand. We had meantime learned much about the disease; it was found that in favourable cases removal with the knife was the only reliable method of cure; the entire lymphatic vessel and its widely separated abscesses being dissected out in one piece. Wounds of extraordinary length were left, but early cases thus radically treated recovered, the percentage of

success being between forty and fifty. The others were destroyed. Recurrence was a prominent feature; some six per cent. relapsed and were destroyed.

It was evident that the most important cause of infection was the method of dressing slight stable wounds, adopted by battery and squadron farriers, of going from one case to the other with a bottle of dressing, and using the same piece of tow or dirty sponge. In this way they carried the disease from one animal to another. An order was published directing attention to the sources of infection, and giving the history of the disease. The order went on to say that a determined effort was to be made to get rid of the epizootic by means of disinfection and inspection. Wounds were only to be dressed under skilled supervision, and fresh dressings used for each. Old dressings were to be destroyed; no wound was to be touched by the farrier's fingers. As by this time stables with concrete floors had been built, the regular disinfection of these with a spray pump was ordered, so arranged that the whole of the stables were disinfected weekly. The pillars, bails and flooring of a standing occupied by an affected case were scorched with a plumber's lamp, and the animals on either side of the affected were regarded as suspects and isolated. Everything depended on the loyal co-operation of the Departmental Staff, and that this was received was shown by the fact that the admission rate soon began to fall, so that for 1904 only one-third of the number of cases were admitted for the last half, as compared with the first half of the year. In addition to the above, the discharge from wounds of all kinds in a unit was examined microscopically once a week, in order to make certain they contained no cryptococci. By the following year the disease was obliterated.

The introduction of specific lymphangitis into the United Kingdom, by remounts sent home from South Africa after the War, will be referred to in the section on "Demobilization."

#### SPECIFIC OPHTHALMIA.

Shortly after the war ended Specific Ophthalmia became a veritable scourge. The disease was seen during the war, about December, 1901, but the number of cases were few. Shortly after the declaration of peace ophthalmia was reported from a Remount Depot in Cape Colony; before the end of the year the disease was found to be widely spread. Specific Ophthalmia appears to have been a new disease in South Africa; neither Dr. Hutcheon nor Dr. Thieler had previously met with it, and we may without hesitation declare it to have been imported with remounts. The conclusion was arrived at that it came with horses from America, in which country specific ophthalmia is common.

The question, however, of origin is not so easily disposed of. 109,739 horses were purchased in the United States between November, 1899, and June,

\* Extract from a report to the P.V.O. of the Army.

† Report of Civil Veterinary Department, Cape Colony, for 1904.

1902; they were received as follows, round numbers being employed:—

Nov., 1899, to March, 1900	1,200
April, 1900, " " 1901	36,000
" 1901, " " 1902	62,400
" 1902, " June, 1902	10,100

Why should the disease only have declared itself after hostilities, in 1902? During the previous year 62,000 horses had been imported from America as against 37,000 in the two previous periods. Why should not some of the 37,000 have shown signs of the disease? We at once confess our inability to answer the question. It might be urged that after the war the general wastage at once dropped, and that the remaining horses, including the 10,100 imported up to June, 1902, lived, instead of dying as those of 1899 to March, 1901, had done. If it could be shown that the disease was subsequently equally distributed between the survivors of the campaign and the new horses admitted to the country between April and June, 1902, there would be something in favour of the view that we did not meet with the affection until some months after the war concluded, as the previous horses died before the disease had time to develop, but we can hardly think this is the case. It is significant that of the units attacked, the Remount Depots, containing the last purchased horses, practically all from the United States, suffered out of all proportion to the others. In one depot no less than 48% were affected, in another 25%.

During the second year after the war over 14% of the horses of the Army of Occupation were affected with the disease, yielding no fewer than 2000 cases. Never has periodic ophthalmia previously existed on such a gigantic scale!

It is a reasonable supposition that when a disease suddenly breaks out and spreads it is due to a contagium; in the case of this outbreak of specific ophthalmia every known method of attempting to communicate the disease by direct inoculation failed. This pointed to an intermediate host, and the fly fell under suspicion, but the use of eye-fringes failed to prevent its occurrence. Apart from the general history there was direct evidence of its infectivity. A remount depot where the disease was rife was broken up, and its horses distributed to two other depots where the disease had scarcely been known. The result was that ophthalmia became an absolute scourge at these depots. Beyond this point we were unable to go, and the agent of transmission remained undetected.

Few cases of the disease were seen in Colonial animals, but at this time only a few existed in the service. Mules did not suffer to the extent of horses, and the South African mule less than the one from the United States. During the third year after the war the disease among horses declined. From 14% admissions in 1903-04, it fell to 7% in 1904-05; with the mules matters remained at a standstill, or were slightly worse. Advantage was taken during this year to ascertain the proportion

of primary and recurrent attacks. These are shown in the following table;—

Of every 100 admissions from the disease—

	Horses	Mules
Primary attacks	50.47 ...	75.62
Second " "	32.23 ...	16.80
Third " "	11.00 ...	3.36
Fourth " "	4.40 ...	1.68
Fifth " "	1.10 ...	1.68
Sixth " "	.62 ...	.84
Seventh " "	.15 ...	—

During the fourth year after the war the disease became still further reduced, and eventually passed away. It is greatly to be regretted that no definite source of infection was discovered. It was a sound measure to treat the affection as microbic, and it is possible that the stall disinfection, so thoroughly practised for Epizootic Lymphangitis, was one of the means by which the affection was subsequently abolished. The causes of the trouble, and its ravages after the war among a body of animals previously comparatively free will ever remain a mystery.

#### TONGUE DISEASE.

This disease was entirely new to the Veterinary Service. It is characterised by the formation of vesicles on the tongue, and sometimes on the lips. The vesicles inside the mouth, instead of running a simple course, ulcerate, converting the tongue into a complex of ragged ulcers with sloughing masses of the tongue tissue and intense fetor. Acute cases died from starvation, as feeding was impossible, and in those examined post mortem the ulceration was found to extend to the back of the tongue and fauces, with deep destructive necrosis of tongue, soft palate, and even the cheeks. Attempts were made to reproduce the disease by inoculation, but failed, yet it can hardly be doubted that it was contagious. Few animals escaped an eruption on the lips resembling variola, though fatal cases occurred in which there was no such eruption.

Nothing was seen of the disease until May, 1901, and at that time it appeared to be widely distributed over Cape Colony and the Free State, causing a relatively high mortality. Veterinary hospitals and remount depots were affected, and also units in the Field. Of its existence in the Transvaal at this time there is no record, but the disease was known there, as it is recorded by Dr. Thieler, who had observed several outbreaks before the war.

During 1902 very little was heard of the disease, and the cases which occurred were milder. It is a subject for regret that more information of a definite character was not obtained regarding this affection, which in some respects resembles vesicular stomatitis, though infinitely more acute than this disease as seen in Europe. The inability to convey it by inoculation and the mortality are also in great contrast to the benign disease. The affection caused widespread inefficiency during the winter of 1901.



*BILIARY FEVER.*

This disease in South Africa was made known by the work of the late Dr. Hutcheon in 1883, who found it was prevalent in the Cape Peninsula, along the East Coast, and for a hundred miles inland, later on he observed it had spread all over the South African Colonies.

In the Cape Peninsula nearly every imported horse was found to suffer, and, it may be added, dogs also. It was not the first time Biliary Fever had been met with by the Veterinary Department of the Army, for in India imported Australian horses suffer, likewise horses imported into Egypt.

The horse of South Africa does not suffer from Biliary Fever, he has an acquired immunity, though his blood contains the organism, and when inoculated into a susceptible animal it conveys the disease with certainty. The cause of biliary fever is a parasite in the red blood cells, closely allied to that met with in man in malarial fever, and in the ox in "red water." Thieler worked at the disease during the war, and a year or so after its conclusion proved that the source of infection was the red tick found principally in the region of the fundament. The tick is picked up while grazing; abundant observations show that on the high veldt stabled horses are relatively immune, though this was not observed by Hutcheon in the coast districts. During the campaign a vast amount of inefficiency resulted from this disease, for all imported horses were liable to attack. It is more prevalent in the early spring and hot season, the period at which the campaign broke out, and horses so attacked are rapidly rendered useless. It is not known how many of the thousands of sick and debilitated horses were affected with the disease, but a very high percentage. Had our knowledge of the affection been as complete at the beginning of the campaign as it was subsequently, it is difficult to see what preventive measures could have been adopted. To keep animals free from ticks is a council of perfection under service conditions. The mortality from the disease a year after the war was 16%: during the war it was infinitely higher.

*OSTEO-POROSIS.*

This disease appeared in Argentine horses imported to the Cape in 1898, and was described as such by Lieut. (now Major) A. H. Lane, A.V.D. Nothing more was heard of it until 1904, though isolated cases had occurred from time to time among the civil horses in the Cape Peninsula. In the latter year the cases became so numerous in Cape Town and its suburbs, that a special inquiry was instituted by the Cape Veterinary Department. In the language of Dr. Hutcheon, it had "become the greatest scourge affecting horses in the Peninsula." In the early part of the same year a large number of military mules at Middleburg Cape, a long distance from Cape Town, were found to be

affected with lameness following on wet and cold weather. This was attributed at first to rheumatism, but as the number in hospital gradually rose to 250, it became evident that something more serious existed. An inspection of these animals showed the presence of osteo-porosis; the lower jaw was thickened in many cases, and deformity of the face existed. Some animals in attempting to rise would tear away the joint ligaments from their insertions. A few post mortem examinations decided the nature of the affection. Fortunately it was localized. The horses in the same station were generally unaffected, so that the food and water appeared to be above suspicion. Notwithstanding, a change in diet, especially to green food, was found to be productive of marked benefit among these animals, though Dr. Hutcheon was unable to confirm this view among the civil animals under his care at Cape Town. The history of the disease points to importation from the Argentine and the United States; it was known in Africa among imported race-horses before the war. Whether, as Lieut. Lane held, it was purely a dietetic disease dependent on a shortage of lime in the food was not settled. Personally we regarded it as microbic.

*PLEURO-PNEUMONIA.*

Throughout the campaign pleuro-pneumonia among the transport oxen was always present; 13,700 cases were reported between April, 1900, and February, 1902, and the majority of these either died or were destroyed. These numbers cannot represent the total number of cases occurring, for the disease was widely spread before the war, and probably no column escaped infection. As a means of keeping the disease under control inoculation was practised. It was impossible for this to be carried out by skilled labour; every man who has been with cattle in South Africa considers himself capable of inoculating. These people frequently employed putrid serum and decomposing lung, the latter actually introduced into a slit in the tail and bound in position. The losses from inoculation carried out under these conditions was considerable; even with the greatest care some loss will be experienced, for the local reaction is frequently intense. A source of infection, not only of pleuro-pneumonia, but of other diseases, was animals abandoned by the enemy in order to be picked up by ourselves. It was an artifice justifiable in war, and a trap into which commanders and others frequently fell. No captured animals should be placed among those of the army until inspected and found free from disease.

The general principles of dealing with a threatened outbreak of pleuro-pneumonia in the Field have already been narrated at p. 59. The collection of serum for this work should invariably be carried out by a professional man; no one else appreciates the importance of cleanliness, freedom from blood and fragments of tissue.

**CATTLE PLAGUE.**

The outbreak of this disease in 1901 has received notice at p. 206; it was necessary to introduce the subject at that point in order to give a clear picture of the difficulties occurring from month to month during the campaign. We have already seen the condition of affairs resulting from the outbreak of Rinderpest, and the losses among the transport cattle from this and other causes down to December, 1901. By this date the control of the disease was well in hand, and the general death rate had fallen to 11%. The following table shows the mortality among oxen from all causes for 1902:—

	Strength	Deaths
January	63,800	9.27%
February	68,700	4.69
March	74,700	4.83
April	75,500	4.42
May	74,300	4.62
June	69,300	6.31

It is not possible to say what proportion of the deaths in the table were due to Rinderpest, but the number would be relatively small after January, as by December most of the animals had been inoculated.

Sufficient for our purpose has been stated, at p. 207, of the difficulties of controlling a disease like Rinderpest in time of war. The great thing was to establish inoculations as early as possible, and the Serum Stations which were opened have already been noticed. The material used for inoculation, pending the lengthy process of serum production, was the injection of rinderpest bile, either in a pure condition, or after being mixed with glycerine.\* The point is still unsettled what risk attaches to inoculation with pure bile.

It will be remembered that bile inoculation was the discovery made by Professor Koch during the outbreak of Rinderpest in South Africa, in 1896-97. He collected the bile from the sixth to the eighth day of the disease, and employed 10 c.c. as a dose which gave a temporary immunity of four months or less; such a period is of the greatest value in a campaign, and if the bile inoculation could be kept up every three months protection would be maintained. The question of whether pure bile can produce the disease is even now not settled. Turner and Kolle deny it, but the late Dr. Hutcheon, of Cape Colony, and his veterinary staff generally, were opposed to the use of pure bile, which they regarded as unsafe. Bile can be rendered free from any chance of producing Rinderpest by mixing it with glycerine. Glycerine destroys the virulence of Rinderpest blood, but not the immunising substances, and glycerinated bile, in 20 to 30 c.c. doses, was used for the control of the disease in Cape Colony, pending the production of serum, while in

\* Two parts of Bile (preferably a mixture of biles) to one part of Glycerine, well stirred, and left to stand for eight days. In cases of urgency it can be used in 48 hours.

the Free State pure bile, in 10 to 20 c.c. doses, was largely used. Unfortunately there are no figures available by which the value of these processes might be compared. The late Lieut.-Col. Flintoff spoke enthusiastically of the benefit of pure bile inoculations in dealing with the disease in the Free State. Dr. Turner\* denies that if collected at the sixth to eighth day of the disease it ever produces Rinderpest. Kolle found that bile collected at the third or fourth day may produce the disease, and it seems not unlikely that some of the differences of opinion may be due to the period at which the fluid has been collected. For instance,—during the campaign, when bile was urgently required, it must frequently have happened that the animal was destroyed too early in the disease. It appeared to those responsible for dealing with the epizootic in Cape Colony that glycerinated bile gave no risks, and it was accordingly adopted.

The disadvantages of temporary immunity led, very early in rinderpest investigation, to the search for a better and more permanent method. Turner and Kolle devised that now in present use, known as the simultaneous method of serum and virulent blood. The antidote is injected into one shoulder and the poison into the opposite one. The animal passes through a febrile reaction and obtains immunity, the loss from the reaction being under two per cent.

The presence of Dr. Turner at Pretoria during the epizootic was of great value; together with Dr. Theiler, he established a Serum Station, and some thousands of doses of serum were produced, but the outbreak was principally controlled by Koch's bile method, as an army cannot wait three months for serum. The bile method in the Transvaal was divided into two stages: first, the glycerinated bile, which incapacitates an animal for about ten days, followed by a pure bile inoculation, which conveyed a long, or, as some think, an everlasting immunity. The Transvaal experience was that pure fresh bile should not be employed in the first instance, as it tended to intensify the character of the disease in those animals already infected, while its immunising effect was too slowly developed to protect healthy animals left in contact with the sick. Jugular injection of glycerinated bile conveys earlier immunity than a subcutaneous injection; in the case of animals urgently required for transport purposes in an infected area, jugular inoculations were practised with good results.

The work connected with Rinderpest on the various Transport and Supply Farms has already been referred to at p. 273.

**SAND COLIC**

The occurrence of sand colic among horses and mules on service will never be capable of entire prevention. The amount of mud and sand taken up with the water and food in a day would be astonishing if it could be brought together. Whether

\* Now Sir George Turner.

animals graze or are hay fed in the lines, they are compelled to take in a certain amount of adhering sand. Fortunately the majority of horses get rid of it regularly with the fæces, but others store it up, and it then becomes a most fruitful source of trouble and mortality. The prevention of sand accumulations among animals living in the open should be one of the constant cares of the commanders of mounted units, and a great deal may be effected by cleanliness in feeding and watering. If blankets are in use the hay may be placed on them. Animals who deliberately eat sand should be muzzled after feeding, and extra salt given with the rations. Watering from a pond should, where possible, be effected by buckets, for the slime and bottom generally are turned up by the first animals which enter; watering from a running stream with a rocky bottom is free from objection, but all rivers in flood after heavy rain are sure to be charged with a considerable amount of mud in suspension, and for this there is no practical remedy on a large scale.

Despite every effort a considerable amount of sand and mud will be swallowed, but care will afford protection against preventable ingestion.

#### DEBILITY.

No reference to the diseases met with on a large scale during the war would be complete without mentioning the most common of all others, debility and exhaustion. The causes for these have been sufficiently studied in the body of this history; we have traced the origin to the semi-starvation diet allowed, and subsequently to the employment of hopelessly unfit horses for the hardest work animals are ever called upon to perform. It is unnecessary to labour the point any further. That there was contributory negligence on the part of regimental commanders has been repeatedly shown, that there was neglect as the result of a total ignorance of the animals' requirements has equally been demonstrated, but beneath all this lies the one solid fact that, after the trained horses of the Cavalry had been utterly destroyed by starvation, there was nothing to take their place but raw, untrained, soft, weakly, underfed creatures, themselves already sick. These, we have seen, filled the ranks from the advance from Bloemfontein in May, 1900, onwards. It is not to be supposed that all the remounts during the remaining two years of the war were equally as "soft" as the above; desperate efforts were made to get some of them into "condition" for work, and as we have seen, in skilled hands, success was obtained, but the time allowed was never sufficient for the purpose generally, and, as mentioned at pp. 188-9, nothing but a suspension of hostilities in 1901 could have effected any all-round improvement. Fresh drafts of officers and men for the regular forces, and an entire change in the Yeomanry and Colonial contingents, were another and unavoidable cause of inefficiency, for these had

first to learn their work before they could practise it. Finally, the working out of horses to the last possible effort was a proceeding of incalculable harm, and one which was not always under regimental control. No difficulty exists in finding adequate explanation of the fact that tens of thousands of horses were rendered useless after a few days' service; the sole difficulty is in furnishing a reasonable explanation of why a practice so obviously destructive was persisted in in the face of all experience and common sense. Into this question, as we have said elsewhere, we cannot enter, but it would appear that the power and endurance of unfit horses were either not understood or were over-estimated. Lord Kitchener's examination before the Royal Commission threw no light on the matter, for the question does not appear to have been raised, perhaps for the reason that the scope of the Commission was confined to the period between the beginning of the war and the occupation of Pretoria.

The utility of thousands of horses was limited to a few days, in many cases a few hours, but the general rate of wastage for the war was 25% a month, so that every horse with the columns was replaced three times in the year, or four months as the mean duration of effective life, whereas it ought to have been nearly thirteen. The main cause of this wastage was debility, and from this alone thousands of horses every month entered hospitals or debility farms, see p. 186.

It has been mentioned, at p. 137, that when animals are reduced in consequence of hard work and insufficient food their recuperation cannot take place on corn; if the material is not assimilated it lies in the intestinal canal and undergoes little or no digestion, and, in fact, frequently causes irritation. What is required for such cases is grass, the natural diet of horses; but this is only obtainable in South Africa during the rainy season. What remains after that is a desiccated stem and leaves, deprived of their natural juices, and as useful, at the end of winter, as thatching for restoring the debilitated. Green crops of almost any kind, but especially barley produce an astonishing improvement in debilitated horses, and the cultivation of these crops, both at debility farms and hospitals, was established as a routine measure late in the war. It is obvious how difficult it was to obtain the very food on which the recovery of these animals depended. The weakest and most constitutionally delicate succumbed, generally as the result of a cold night or heavy rain-fall. Those with a little more life left in them would be found down in the morning and utterly unable to rise of their own accord. They required to be lifted bodily upon their legs, and the warmth of a generous sun did the rest. How many died on farms through no help being at hand to assist them on to their legs will never be known.

The drafting of horses from one debility class to another is an essential feature in management; it is no use putting the strong and the weak together; all weaklings must be together, all those improving

form a second class, while a first class is represented by those fit for grain feeding, and from which selections are made once or twice a week for transfer to Remounts with a view to subsequent issue. Without some such rough classification farms are not doing their best work; horses get overlooked, and, worst of all, the weak and strong are thrown together. Classification and grouping are the two cardinal points for the Remount Officer to attend to, and while this is taking place the Veterinary Officer should be inspecting for infectious and contagious diseases, and weeding out any which appear to be hopeless and show no sign of improvement. This work cannot be hurried, and it is desirable that the classes should be made as small as possible for convenience of inspection.

A good supply of clean drinking water is essential; if this does not already exist in the paddocks, an officer should be deputed to see the various classes taken to water in mob formation, for no one else will do the work conscientiously. It is astonishing how rapidly horses adjust themselves to their new surroundings when in large numbers. If they have to be taken to water twice a day, they will be found collected awaiting the event; the first day or two may lead to an attempt at a scamper, and consequent falls from sheer muscular weakness, but they soon come into line, and solemnly walk off to water or grazing in a long drawn out procession conducting themselves with perfect propriety. Any attempt to hustle debility cases by trotting to save time should lead to the immediate dismissal of the offender. The animals must walk, be handled quietly, coaxed and encouraged; whips should be unknown. Three or four mounted men, skilled at the work, will conduct some hundreds of horses, one riding at the head, another at the tail, and one on either side. Every man who can ride will not be a stock-rider; we learned much of this work from our over-sea colonial brother, though his methods are frequently too rough and boisterous for horses in a state of debility. With water, grazing, and constant supervision a month will see astonishing improvement even in the worst cases; three months should see the majority of the horses in the ranks.

The man whose perseverance and attention successfully manages a debility farm, and keeps up a regular supply of suitable animals for the Remount Depot cannot be too well rewarded for his work at the end of the campaign. The secret of success lies in the eye of the master, and that must be kept focussed on its objective for as many hours as the sun is above the horizon.

No attempt has been made in this outline to deal in detail with the question of debility farms and their management. In the above sketch almost ideal conditions have been assumed. In practice the reverse will be met with, and the ability of those in charge will be shown by their adaptability and resourcefulness in making the best of existing conditions. The first step is to arrange

for water and grazing; then classification, grouping, and regular inspection; after these, attention must be paid to manger construction, and shelters for the worst cases. The results following on this systematic organisation will be astonishing, provided the officer in charge thinks of his horses all day, and dreams of them at night.

Where debility farms are under no organisation, the state of affairs which will result is that described at pp. 137 and 202 of this History.

#### WOUNDS AND INJURIES.

The wounds and injuries which occur to the mind as being associated with war are those due to firearms. As a matter of fact they represented during the South African War quite a minor and relatively unimportant part of the trouble. Readers of this History must have been impressed by this fact. We are anxious, however, not to press the point too far, for a very different tale would have had to be related had the British Forces in South Africa been engaged by numbers equal to their own, and as numerically well-equipped with weapons of destruction.

In European Wars the proportion of horses hit is generally greater than that of men. During the wars, 1866 to 1870-1, for every 100 Cavalry soldiers killed or wounded in action there were 140 horses, and for every 100 Artillerymen there were 130 horses. In the operations at Mars la Tour, confined to Cavalry against Cavalry, the three German Cavalry Divisions lost in hand-to-hand fighting 14·7% of their men, and 16·3% of horses. The fire losses occasioned by Cavalry charging Infantry may be illustrated by the losses of the French Cuirassiers at the Battle of Wörth, where 30% of the men and 57% of the horses were lost; the German charge against Infantry at Bapaume resulted in 10% of the men and 24% of the horses falling.\* It is evident, therefore, that the relatively small proportion of horses hit in South Africa does not represent the normal state of affairs, though it is probable that in the future cover for horses will be far more carefully taken. The explanation of the preponderance of horses hit over that of men is, of course, due to the larger target. It is not only higher, but wider and infinitely deeper than that of a man. When exposed broadside on to a fire, the effect is greatly increased, for not only is the target many times larger, but a bullet passing through the cavity of the chest or abdomen has but little of its velocity removed, and may continue on its way and pass through two or three other horses, depending upon the range at which it was fired.

\* "The Loss of Horses in War," Veterinary-Captain F. Smith.—*Journal of the Royal United Service Institution*, Vol. 38, 1894.

#### ARTILLERY FIRE.

Fire injuries are grouped into those produced by artillery and those caused by infantry. The trifling losses occasioned by artillery fire in South Africa produced a feeling of contempt for all but its moral qualities. For instance, many thousands of shell were fired into Ladysmith, but the losses both among men and horses were small. On 6th January a battery stood in the open and was shelled from three sides, and had but three men and fourteen horses killed and wounded. We have seen at p. 67 that over 20,000 shell were fired into Mafeking during the siege, yet the total number of animals hit was thirty out of an original strength of roughly 700. The strength diminished considerably from February onwards, so that the percentage hit would be higher than that indicated, nevertheless it was insignificant. The explanation of the small loss from the Republican Artillery was due to the fact that they favoured common shell. Shrapnel, as used by our artillery, is most destructive, and we have noted at p. 67 the number of bullets lodged in the body of one horse exposed to this form of fire. At p. 46 also we have seen the recorded effect of a 40-pounder shrapnel fired into Ladysmith, which killed or wounded twenty-four mules and four men. It would be absurd to discount the destructive effects of artillery fire from South African experience alone. In a European War with larger masses engaged, and innumerable guns pumping in iron from quick firing guns, the destruction, as shown by the recent war in the Balkans, is terrible.

Shrapnel fire kills or wounds with its bullets, common shell by the bursting of the projectile. In this latter case, if the shell fails to kill, by disembowelment or the removal of head or limb, quite a crop of jagged wounds may occur as the fragments scatter. These may be confined to the skin, or portions of the underlying muscles may be torn away. The horse fortunate enough to receive only grazes from flying fragments may be some little time under treatment, owing to the sloughing of the flaps, for the bruising is considerable. We have seen this was the case in Mafeking, where the wounds became indolent and sloughed; but there were two factors at work here, the pounding of the tissues and animals on siege rations, see also p. 67a.

#### RIFLE FIRE.

The bullet employed by the Republican Forces was chiefly the modern projectile common to all European Armies; but bullets of greater calibre were frequently used, especially the Martini. The long, narrow, present-day bullet is not devised for the purposes of humanity, but for its increased range and accuracy, and for the larger number of rounds which may be carried for a given weight. Incidentally, it is more humane, and unless a large bone be struck or vessels severed, no immediate, and frequently no subsequent, inconvenience results from

the muscular wounds it produces. The bullet, by being made long and narrow, offers the least resistance to its passage through the air, and so long as it is in equilibrium it maintains its long axis parallel to its line of flight. At extreme ranges there is a tendency for its centre of gravity to become displaced, and the bullet may make half a revolution and strike base foremost; far more serious, from a surgical point of view, is the fact that the projectile may make one quarter of a revolution and strike side on. This will produce a wound of the most extensive nature.

There was little learned about the behaviour of narrow bullets during the war which had not been arrived at by experiments on the dead body during peace.\* The destructive effects of the bullet depends upon its velocity and the resistance offered to its passage by the various structures of the body. The opposition offered by a purely muscular mass is relatively small, so that the projectile passes out, or ploughs its way for a considerable distance into the soft parts of the body. With bone the matter is different, those offering very little resistance, such as the blade of the scapula, are punched and the edges starred; with dense bones, such as those of the limbs, the resistance is considerable, the effects are consequently almost explosive in violence and the bullet partly breaks up. Pulverising effects may also be met with in the semi-rarified bones of the knee and hock joints, doubtless owing to the depth of tissue to be traversed.

In muscle pure and simple the path is narrow; there may be a channel little, if any, larger than the bullet, the path being identified by the trifling muscular hæmorrhage. The length of the channel depends on the part struck; in the cavities of the chest and abdomen the bullet may find exit, with sufficient remaining velocity to enter one or more horses. In the muscular masses of the hind quarters the projectile may pass across and be found under the skin of the opposite side; when the animal is hit in purely muscular masses the bullet travels an extraordinary distance, and far out of reach. There may be two or three such wounds in the same animal which cause no inconvenience if vessels or bones have been avoided. The frequency with which these bullets twisted and turned in their course is noted at p. 17 d.

Wounds from ricochets are frequent, and may be extraordinarily severe; this, of course, is due to the amount of distortion the bullet receives before striking the body.

One of the greatest difficulties in practice is to determine *where* the horse is hit: the surface of the body has to be carefully searched to enable a minute cleanly punched hole to be discovered, the size is out of all proportion to the bullet, for the skin is elastic and stretches to allow the projectile to enter. We may be directed in our search for the point of entry by the existence of a little coagulated blood

\* "The effect of the Lee-Metford Bullet on the Bones of the Horse." Veterinary-Captain F. Smith, *Journal of the Royal United Service Institution*, Vol. 38, 1894.

matting the hair; beyond this there is nothing to show, though the most extensive destruction may exist within. If the bullet gains exit the skin opening is larger and generally everted.

Injuries to the chest or abdomen are either fatal in a short time, or, if they have failed to find a vital spot, they cause no inconvenience. Such happy results are more common in the chest than in the abdomen, where a bullet can hardly fail to catch something in its course, generally the intestines, resulting in many and widely separated perforations, depending on the position of the convolutions at the moment of injury.

Injuries to the hoof present a remarkable character. When a bullet strikes the wall, the horn fibres open to admit it and at once close. They behave exactly as a piece of rubber does when fired into. Not a trace of blood may mark the spot of entry or exit, but merely a slight mark or graze of the horn, as if it had been in contact with a sharp pointed piece of rock, yet the structures within may be pulverised. This class of injury, fortunately rare, will always be a difficulty in practice; even a larger bullet, such as the Remington, may strike the hoof, enter, and leave practically no trace of its presence within.

The great lesson learned during the war in connection with bullet wounds was that of non-interference. There is ordinarily no reason whatever why a bullet should not remain in the body; with exceptions to be presently mentioned it causes no inconvenience. Probing is useless and dangerous, the clot of blood sealing the orifice is thereby removed, and whatever is introduced into the channel only aggravates what may be a perfectly simple wound. Injuries to the face involving damage to the molar teeth form an exception to non-interference, for the broken fragments of tooth should be removed and any loose portions of bone. Injuries below the knee and hock are frequently penetrating; if such is not the case the bullet may be felt, and should be removed, as it may prove a mechanical impediment to the working of the parts. If out of harms way it should be left alone. The extraction of bullets with the forceps supplied at the early part of the war, was a surgical operation far more destructive than the bullet; it converted a simple into a complex wound. A bullet near enough to the surface to be grasped may be removed with dressing or other forceps, though it is infinitely more tenacious of removal than this statement may imply.

When a long bone is hit and pulverized, there is no question of the extent of damage, for the part feels like a bag of marbles; but some joints, notably the knee and hock and the foot, may be pulverized within without any destructive feel being imparted on manipulation. Wounds of vessels are rapidly fatal when large trunks are involved, otherwise the surgery of the vessels is less important than in man.

There is always a difficulty in the Field in obtaining anything like exact information regarding fire

injuries to animals; the man knows that his horse has been killed or seriously injured, and that it either fell at once or shortly after being hit. But where the injury occurred he is naturally ignorant, for the reason previously noted. When neither man nor horse return, the animal may or may not have been hit, but have passed into the hands of the enemy. It is only in siege operations that any opportunity exists for making an expert examination of each case of injury, yet a knowledge of the percentage of horses hit, and the proportion of fatal, serious and slight cases is of the greatest interest. In the Field, the more seriously injured animals are unable to move, and may consequently be returned as missing instead of wounded. Where large vessels are cut they bleed to death on the spot, and if the long bones of the limb are pulverized they remain where they are. Consequently, it is only those horses able to walk after being wounded, or still capable of carrying their riders, which subsequently find their way into a Field Hospital for treatment, and this no doubt has led many to regard the narrow bullet as producing insignificant results on the horse.

In the siege of Mafeking 79 bullet injuries were inflicted on horses, of these 52 died, 15 were destroyed, and only 12 recovered (see p. 67). All the injuries were produced by the Mauser rifle, and a weapon which can inflict 85% of fatal or incurable cases cannot be regarded as ineffective. Head's results\* were much the same. The regiment he was with had 163 horses hit, and of these 77.3% were either killed outright or had to be destroyed.

The position of injuries on the body is information of the greatest interest, but, unfortunately, with one exception, no exact records are available. With man it is known that injuries of the upper half of the body are more frequent than those of the lower half, but we have very little of an exact nature to determine these questions for the horse. Theoretically his trunk must be hit more frequently than the limbs owing to the considerable area it offers. We are indebted to Captain (now Colonel) J. Moore for an exact classification of his wounded at the action of Ramathlabama (see p. 64 of this History). Of 300 horses present, 83 were hit, or 27%. Thirty-nine were killed outright or unable to leave the Field, and forty-four were subsequently treated for their wounds, of which the following gives the situation:—

Injuries to hind limbs and quarters	23
" " fore " " "	6
" " trunk " " "	11
" " head " " "	4

Hits in the thigh and stifle were more frequent than elsewhere, and the excess of hind wounds over wounds of the fore part of the body may, in this case, be explained by the force having to retire. Only one animal was hit in the foot.

\* *Op. Cit.*



The essential fact revealed by the War was the absolute necessity for adopting a conservative and expectant attitude in the treatment of rifle injuries.

#### VELDT SORES.

This class of sore was found among the horses in the Field, especially during General French's campaign on the Pongola (related at p. 158b.). From the description given of it as an indolent ulcer affecting the limbs it would appear to resemble Bursattee. Others believed it to be caused by the irritating nature of the mud in which the animals were standing for weeks, but we have seen (at p. 166) that it occurred in the almost waterless northern territory. The matter is one on which we have little information, and apart from the above-mentioned outbreaks the disease did not generally appear among the horses in the Field.

#### INJURIES FROM LIGHTNING.

These were very common, or rather deaths from lightning stroke occurred probably every week during the wet season. A team of bullocks or mules, or three or four horses, might fall at a single stroke. The total loss of life from this cause throughout the campaign would be quite considerable, but records are wanting. It is remarkable how little there is to show on the surface of the bodies. Doubtless the hair and pigment of the skin conceal the tracings found in man, but there is frequently scarcely any singeing of the hair to indicate that the animal has been struck.

#### VELDT BURNS.

These were caused by the disastrous fires that occur, generally through carelessness, during the dry season. The fire spreads with extraordinary rapidity, and animals tied up on the picket line have very little chance of escape. In such cases the feet and limbs in severe cases are burned to such an extent as to demand the animal's destruction. If retained under treatment large areas of skin slough off, exposing the parts beneath, and indicating the hopeless results of further efforts.

Any camp in grass lands which, during the dry season, is to be occupied for longer than a night, should have an eight-foot clearing made all around it.

#### SEPTIC VILLITIS.

This class of injury was very common in the thorn country, see p. 166, where it caused a serious amount of inefficiency and subsequent loss from septic infection. No preventive measures suggest themselves. In the matter of treatment, the thorns (known in South Africa as "Wait-a-bit," and growing on a variety of acacia) are most difficult to remove; they break off flush with the skin and

produce acute inflammatory trouble. In India, poultices of the earth thrown up by the white ant is employed to extract thorns, and in tropical and sub-tropical operations this remedy might be employed.

Injuries resulting in the serious class of affection known as Quittor have been sufficiently dealt with at p. 244; those due to Heel-gall have been described at p. 274; Sore-backs at p. 245.

#### POISONOUS PLANTS.

South Africa is not only the home of Epizootic diseases but also of a large number of poisonous plants, of which, even at the present day, very little is exactly known. Animals which have to gather their keep in the open are naturally much more exposed to infection than those stable fed, and throughout the War the loss occurring to all classes of animals from grazing was enormous. Not a column, practically not a unit, escaped from more or less loss. Thirty or forty cases of tulp or other vegetable poisoning in a few hours were by no means unknown. The consequent inefficiency was considerable, especially during the rainy season, at which time these plants spring into life and cannot be distinguished in their early growth from ordinary vegetation, especially is this the case with "tulp," which resembles shoots of young grass. Noxious vegetation is consumed by the new comer, but animals reared on poisonous pasture learn, apparently from experience, what to avoid, though this is by no means invariable.

The symptoms produced by poisonous plants may roughly be grouped into those which set up extreme gastro-intestinal irritation, for example, tulp, ink-bush, oleander, and those producing nervous symptoms, frequently indicated by tetanic convulsions, such as *Chailletia Cymosa*,\* "Gift Blaar," "Klimop," *Cotyledon Ventricosa*,† "Slang Kop" and "Dronk Grass," the latter producing giddiness and symptoms resembling alcoholic poisoning. Nor does the above list by any means include all which are known. There are cumulative vegetable poisons which produce cirrhosis of the liver; others which cause laminitis in cattle, disorganization of the feet, bone and joint disease. Nor need we be surprised at these extraordinary local effects when we remember the action of Indian "mutters" in producing spasm of the larynx in the horse. It is not with the latter group we are concerned in this section. Only those poisonous plants which act rapidly and produce tympany and acute abdominal pain were recognised as poisonous, and "tulp" and ink-bush were the chief offenders, tulp predominating. There are some thirty-seven varieties of tulp, of which the one bearing the purple flower is the most poisonous. That it is consumed readily

\* Local name not known.

† Idem.

by starving animals after months of drought is not to be wondered at. The effects are shown in a few hours—diarrhoea, acute tympany and pain, great collapse and rapid dissolution are the prominent features. Head\* also noted the presence of a peculiar sour, musty smell of the mouth. There is nothing diagnostic in these symptoms, but the fact that a large number of animals are simultaneously affected tells its own tale. There are districts notorious for infection, but all low-lying ground in the neighbourhood of streams, rivers and water courses is liable to contain the plant. In spite of this well-known fact, it was remarkable how little attention was paid by many of those in authority in the selection of grazing areas. Animals were permitted to graze when waiting their turn to ford a river. It was natural to take advantage of this delay, often a matter of hours, yet no worse site could have been selected, though the high ground in the neighbourhood would have been practically free from danger. Over and over again disastrous results attended on the neglect of the simple precaution of selecting grazing areas; orders were published, but on service these are rarely read, or they are lost in transit, or put away and forgotten under pressure of urgent work.

The mortality from tulp poisoning is very high, though early and energetic treatment will save many. The most urgent matter is the relief of tympany, and this can be effected by puncturing the intestines. Of 172 cases punctured by Captain (now Lt.-Colonel) Dunlop Smith, 167 recovered. Of 72 animals not so treated, during his absence, only 14 recovered. So urgent are the symptoms that no delay must be permitted in the matter of puncturing the bowels. We have seen (at p. 96) that this had to be done by Lieut. (now Major) F. W. Hunt at a time when the force was closely engaged with the enemy. To clear out the intestinal canal as early as possible is imperative; in the hands of Captain Head, A.V.C. (R), the employment of Eserine met with good results.†

#### DISPOSAL OF THE DEAD.

The area of operations was strewn with the carcasses of animals. An account of this at its worst stage is given at p. 41 d. The number of dead removed from the water of one section of a single river is mentioned at p. 118 d. It is impossible to give an adequate picture of the appearance of all camps and bivouacs, especially during the early stages of the war, when the troops were operating in large masses. The dead lay everywhere, and there was no means of coping with their disposal, for no labour existed for burial and no fuel for burning. As the various large centres became occupied it was evident that some effort must be

made to collect the carcasses dotted all over the neighbourhood, for they lay in the water sheds, and with the advent of the rainy season extensive pollution of water supply was certain.

At Kroonstad, for instance, where hundreds of carcasses lay rotting, they were collected on an elevated piece of ground, laid side by side, and a deep trench dug around so as to cut off the water which, in the wet season, would have rushed through to the neighbouring stream. In this way no surface water could escape excepting by filtration. As an economical means of rapidly disposing of the dead this recommends itself, but is open to the objection that the putrefying mass is above the ground. The fine dry air of South Africa rapidly desiccated the remains, and later, in the case of Kroonstad, Lieut.-Colonel Flintoff introduced the South American method of using dried animal material as fuel. The dried, mummified remains were easily ignited, and one carcass served as fuel to consume another. The whole in this way were completely burned. It is obvious, however, that no such method as this is applicable for some months, until the carcasses are dry: in the meantime the air is poisoned.

Burial as a means of disposal naturally suggests itself, but digging a pit to hold a single horse is a big undertaking, one to hold fifty or a hundred bodies is an immense task, requiring a small army of labourers. Nor is there always a suitable site for such a burial ground in the vicinity of the carcasses, so that these may have to be dragged by hand considerable distances. Where burial is resorted to, there should not be less than three feet of earth covering the bodies; the animals must be laid on their backs, as the most economical method of packing, and fitted in closely. The stifles and elbow joints must be cut across to allow the limbs to fall; and the abdomen must be opened.

On the scale with which destruction had to be carried out in South Africa, there was practically no method of rapidly dealing with the dead; 250 animals destroyed in a day from one hospital was by no means unknown. Long before these could have been buried, even had the labour existed, other batches would have been awaiting disposal. Destructions have one advantage over deaths, and that is, the most favourable site may be selected, and no dragging of carcasses is necessary, but in all cases the mass should be isolated from the general surface of the soil by means of a trench to prevent the escape of surface water.

The Secretary of State for War was addressed in Parliament on the question of cremation being resorted to in South Africa for the disposal of animal carcasses. The suggestion was a natural one from those unfamiliar with the fact that the country contains no fuel. An incinerator, however, was erected in connection with the veterinary hospital of Pretoria, early in 1902. Some months were occupied in discussing the matter and in getting out plans and estimates; finally, at a cost of £300, one was produced. Its working capacity was fifteen

\* "The Wear and Tear of Horses during the South African War." *Journal of Comparative Pathology and Therapeutics*, 1903.

† *Idem*.

horses a day, at a cost, it was said, of about 1 cwt. of coal, exclusive of that necessary for the first heating of the kiln; including this, it was said to work out at 150 lb. of coal per head. In actual practice, however, extending over six months, it was found that not more than ten carcasses a day could be consumed, and that the cost of fuel was much larger than the original experiments suggested; on one occasion as much as twenty tons of coal being used to consume fifteen carcasses!

No more than two carcasses could be placed in the incinerator at one time, and they occupied about two hours for complete combustion. The kiln was erected on the reverberatory system; the heat from the fire hole ascended between two skins of brickwork, and was then drawn through the central flue to the chimney, the draught being regulated by an iron damper in the main flue. The carcasses were placed in the kiln by means of a crane. Experience in working showed that the inner skin of brickwork should have been made entirely of fire-bricks and much stouter, that the grating floor should have had larger holes so as to have allowed the charred bones to fall through; this would have prevented the clogging which occurred, necessitating the fire being allowed to go out in order to clear the interior.

The cost of erection and working, for the relatively small result obtained, appears to be prohibitive.

Where fuel is no difficulty and labour available, field cremation may be practiced by means of a cross trench dug in the ground, a detailed account of which method is given elsewhere.\*

#### DEMobilIZATION.

The termination of a campaign brings immediate relief to troops, but none to the technical branches of the army, and least of all to those charged with the duties of treating the sick and obliterating epidemic and epizootic diseases. The number of sick animals to be treated actually increases, as many which have been kept at work under pressure of military conditions are now available for repair, but, above all, the question of the obliteration of infectious and contagious diseases has to be taken seriously in hand. These facts are liable to be forgotten by the staff of the army, who, in a natural desire to reduce expenditure, press for reduction of establishment, and cannot understand why it is that a large veterinary staff is necessary after hostilities end. Hard as all previous professional work is, it now becomes still harder, for it is manifestly impossible to sell animals affected with contagious diseases, or those sick and lame. Some military and civil veterinary officers did not always realize why they could not be at once liberated from the country, for the rest which so many of them had both earned and needed. They did not, of course, know the extent to which contagious diseases existed, for in

a campaign all is darkness beyond the immediate visual field of those not in administrative charge. The Administrative Officer who parts with his staff before the slate is cleaned deserves the difficulties in which he will surely find himself.

On the day peace was declared there were 28,700 sick horses and mules to attend to, and an unknown number of sick oxen, certainly not less than 10,000. Glanders, mange, epizootic lymphangitis, specific ophthalmia, cattle plague and pleuropneumonia existed. All of these had to be dealt with and obliterated; the Army Veterinary Service had never previously to undertake such a gigantic task. These diseases were spread over a sub-continent, and, though the troops had concentrated on the cessation of hostilities, the affected animals were strung out on four long lines from the coast, narrowing to three as Pretoria and Mafeking, the two extreme northerly points, were approached.

The first anxiety of the military authorities was the reduction of the number of animals now surplus to requirements. On the day peace was declared there existed 131,700 army horses, 76,600 mules, 12,800 donkeys, and 74,200 oxen. The cost of keep of these represented an enormous daily expenditure, so that the almost feverish anxiety shown to dispose of the surplus numbers can be readily understood. A country left desolate by over two years of constant war is not in a position to purchase any commodity, let alone live stock for which no keep existed. This was the condition of affairs in the Transvaal and Free State, and for the regeneration of these colonies a department was formed with some millions of money at its disposal—provided by the conqueror—for the purpose of setting up the late enemy on his feet, and starting him on the road to recuperation. This Repatriation Department has already been referred to in dealing with the question of glanders (see p. 282 c.). It required animals of all classes, and, as we have already mentioned, needed them early and urgently, if famine was to be avoided. The Repatriation purchased from the military authorities:—

Horses	...	23,700
Mules	...	51,800
Donkeys	...	5,700
Oxen	...	60,900

This still left an enormous number of horses for sale in Cape Colony and Natal, where money and food existed, and some 86,800 horses, 9600 mules, 3400 donkeys, and 2000 oxen, were in this way disposed of before the end of February, 1903, to private individuals as apart from the Repatriation Department.

The total sales of equines between 1st June, 1902, and the 28th February, 1903, amounted to: horses, 120,500; mules, 61,400; donkeys, 9000; and this represents the amount of susceptible material which was spread broadcast over the country. We have already seen (p. 282 d.) that a mere trifle among these animals was malleined, and we also know the result of our utter inability to carry this out. No physical

\* See "A Manual of Veterinary Hygiene, 1905." F. Smith.

examination, no matter how conscientiously performed, can enable latent glanders to be detected without the mallein test. There were 9,500 horses and a similar number of mules destroyed between 1st June, 1902, and 28th February, 1903, and it is safe to say that at least one-third of this number was destroyed for glanders, so it is evident the disease was still rife. Nasal inspection was wholly insufficient to prevent affected animals being sold, and the consequent losses to private individuals, and especially the Repatriation Department, from glanders was extremely heavy.

Immense losses occurred from other causes, for instance: the majority of the horses purchased by the Repatriation Department were turned out on the late stock farms until required. No grazing existed, and no men were provided for the purpose of looking after the animals. How often has the lesson to be learned that horses cannot live without food?

Perhaps one explanation of the want of system in dealing with this stock was the difficulties which suddenly arose between the military and civil side. The "Times History" tells us\* that "weeks of desperate haggling" over prices occurred. The animals, and the food for them, were priced too highly according to the Repatriation view; in fact, the military supplies, of which enormous quantities were available for sale, were finally discarded on account of the high price asked, as the Repatriation Department found they could import food and feeding stuffs cheaper than they could buy it on the spot from the military! It passes all comprehension why two public bodies, supplied from the same purse, should have been permitted to "haggle" over prices; but it is authoritatively stated that the dispute went on for weeks, the military holding the stock and the Repatriation requiring it. Importations of food and stock from over-sea followed; one can understand when such desperate action as this was taken by the Repatriation Department, that the controversy left little time for considering the case of the 21,000 horses turned out on farms to shift for and look after themselves.

The above events led to disasters of the first magnitude, for the unsold military supplies deteriorated, and were finally disposed of under circumstances so scandalous that a Royal Commission was appointed to inquire into the matter.

We have seen the difficulty throughout the war in getting sufficient food for animals. On the day when peace was declared there were 100,000 tons of oats, and nearly double that quantity of hay in the various supply depots of South Africa.† Nor does the above represent all the supplies subsequently available for sale, as vast amounts continued to pour in until March, 1903. On 31st May, 1902, there was sufficient food in hand to have allowed every horse in the country 12 lb. of hay a day for eight months, and 12 lb. of corn for four months.

In the face of this it is extraordinary that horses should have been called upon to perform the most arduous and exhausting work on 10 lb. of oats, and no hay. This question, however, does not now arise. The food was available for sale for Repatriation animals, but, as we have seen, the two servants of the State failed to agree, owing to the "exorbitant terms"\* demanded by the seller, the result being that immense surplus stocks of food of all kinds, valued at £11,000,000, were left on their hands. Enforced sale now became necessary to save further deterioration, for all supplies were in the open, and we shall let the "Times History" tell the story † of "the most amazing blunders probably ever perpetrated":—

"A system was introduced of selling Government supplies to a contractor, who at the same time contracted to supply them back to the troops as they were wanted, at a difference in price which was supposed to allow a fair margin of profit after paying for sorting, removal, storing, issue and deterioration." The supplies, however, were not removed; they remained "where they were, and were served out by an A.S.C. subordinate as if nothing had ever happened, the only difference being that the contractor pocketed a heavy profit on the transaction."

To meet the army sales, mushroom contractors arose, and one of these secured within a fortnight contracts both to buy supplies and to supply them back to the army at a higher price. Oats sold at 11s. per 100 lb. were bought back at 17s. 11½d. "As the firm had no capital it was benevolently arranged that it should be paid promptly for what it sold, and given credit for what it bought. It even received a refund of £21,000 on goods for which it had not yet paid. Over this deal in oats and other goods the firm netted £69,000 without effort and without risk, and others made still larger profits." ‡ The loss to the State was estimated at between three-quarters to one and a quarter millions sterling.

The Repatriation Department met with other difficulties. They imported cattle, among other places, from Madagascar and German East Africa; with these they imported a new epizootic, the so-called East Coast Fever. There is reason to think that had the matter of re-stocking the country not been one of such urgency, greater attention would have been paid to the advice given to the civil Government as to quarantining these new importations at Lorenzo Marquez, the port of entry. They were not quarantined. In July, 1902, the newly-imported cattle were dying in large numbers at Komati Poort, and, under veterinary advice, it was recommended that the movements should cease, as they were suffering from "Rhodesian Red Water." Professional men, however, were far from unanimous as to the nature of this new disease; some declared

\* Vol. vi, p. 48.

† "Times History." Vol. vi.

\* Idem.

† Idem, p. 405.

‡ Idem, p. 615.

it to be Rinderpest, on the strength of the stomach and bowel lesions; some, "tsetse" disease; and amid these differences of opinion, which were perfectly natural on the introduction of a disease new to everyone, the civil side was urging the distribution of the cattle. They were allowed through, or at any rate came through, by rail and by road. They infected the Transvaal as far north as Pietersburg, to the west as far as Rustenburg, and the whole length of the road Komati Poort—Pretoria. In a few weeks the damage revealed itself, and from that long line the disease spread south, through Natal and the Free State. We are writing of events which occurred twelve years ago, but that period has not been long enough to obliterate East Coast Fever. It has brought ruin in its train, and cost countless thousands of pounds to South Africa.

The above does not complete the account of the curses attending war. The War Office, knowing the large surplus of animals in South Africa, saw no objection to bringing home horses from a country gravely infected with disease. They acted without veterinary advice. Every care was taken in the selection and inspection of the 800 required, and nothing was put on board to which a shadow of suspicion attached. The animals were selected from several centres, so that the risk of picking up something on the way to the port of embarkation had not suggested itself. On the arrival home of the ships hundreds of animals were found affected with mange. This was bad enough, but worse was to follow. The apparently unaffected horses were issued to batteries in various parts of the United Kingdom; among these animals epizootic lymphangitis appeared, and through sales of cast animals, this disease eventually spread to the horses of the civil population.

By this time surely the cup had been drained to the dregs! Everything that could possibly happen took place; every blunder that could be made was perpetrated. The Government knew for a year prior to the ending of the war that there was a feeling against bringing horses home from South Africa, mainly on the score of expense, and Lord Stanley, on 7th June, 1901, said there was no intention of bringing home the horses which had been sent out;\* yet, a year later, this was done, and without consulting professional opinion as to the wisdom of such a policy.

The horses arrived home in August, 1902; it was not until December, 1903, that M'Fadyean recorded a case of Epizootic Lymphangitis in a horse attending the clinique of the London School. The animal was a cast horse from the service, and bore the brand of having been in South Africa. At this time the disease already existed in several military centres; five months later, May, 1904, other cases of the disease were met with in civil life, though confined to cast horses, and the Board of Agriculture published an "Epizootic Lymphangitis Order"

preventing the movement, and securing the isolation of animals so affected. By July, 1904, the question assumed so alarming an aspect that information was asked for in the House of Commons. The Secretary of State for War stated that the total number of army horses affected to date was 394, and that the disease existed at 30 different military stations, the worst being Woolwich, where 231 cases had occurred; 254 in all had been destroyed, 32 recovered, and 108 remained under treatment. All sales of cast horses from affected units were prohibited for six months after the last case of the disease. A year later, April, 1905, it was elicited in the House that of the above 108 cases remaining in 1904 sixty had been destroyed, and that 96 fresh cases had occurred during the year in English garrisons, one in Scotland, and five in Ireland. On 12th May, 1905, the Secretary of State informed the House that the disease in the army had practically been stamped out.

The above summary of a serious and costly outbreak of disease, and the introduction of a new terror to horse owners in this country, was entirely due to the neglect to take veterinary advice. No one with any notion of the extent to which the horses in South Africa were exposed to infection, in an army literally riddled by epizootic diseases, would ever have thought of carrying this combustible material to a clean country. Who was to blame for this waste of public money? The question was not publicly asked, but there is little reason to doubt that the suggestion to bring these horses home arose with the Remount Department of the War Office, or at any rate, received their approval. It was the culminating blot on an Administration which from first to last blundered through ignorance, not only in its own special work, for which no ignorance is excusable, but in all veterinary matters with which it interfered. The evidence on these points has been fully set forth in the previous pages of this history.

The remaining act of demobilization was concerned with the personnel. India had for two and a half years been kept short of its proper proportion of veterinary officers in order to supplement the numerical weakness in South Africa. Seventeen officers were returned to India before the end of 1902. Fifty Civil Veterinary Surgeons were also sent home or took their discharge in the country on reduction of Establishment. The whole of the Indian Hospitals, together with their personnel, were returned to India.

By December, 1902, the fifty Field Veterinary Hospitals had been disbanded; twelve Station Veterinary Hospitals were formed for the Army of Occupation, and four Mobile Hospitals organized. The stores in the various advanced Depots were distributed among the Station Hospitals, so that each should possess an independent reserve in the event of difficulties arising. The base depot at Cape Town was retained, and into it all material surplus to the above requirements was returned.

\* See *Times Report*, 6th and 7th June, 1901.

*VETERINARY STORES AND EQUIPMENT.*

A consideration of this subject mainly resolves itself into questions of supply and distribution. The early history of both these have been incidentally dealt with at p. 4, where it has been shown that the army, presumably ready to take the Field, was without veterinary equipment of any kind, excepting a few old chests of the Peninsular and Crimean days. It is almost beyond belief that such a state of affairs existed, but it had its parallel in the astonishing shortage of all other military stores and equipment, to which sufficient reference has already been made at p. 3. As a matter of fact, the Force did not take the Field without equipment: owing to the steps taken by Colonel Duck, the then Director-General (see p. 9), sufficient material had been constructed to furnish each unit with an outfit, but it was the bare minimum, and not calculated to last more than three months. A reserve of this equipment for meeting wear and tear did not exist; the measures for replenishment were of a meagre and hand-to-mouth order, and only included a few of the more common drugs, and no instruments. For hospital equipment nothing existed but a few pairs of obsolete panniers; this cannot be wondered at, as hospitals formed no part of the War Office scheme.\* The supply of stores to an army in the field is carried out by a depot under an officer with a staff of subordinates. The officer is responsible for the receipt and issue of stores, the record of which is made in ledgers and supported by receipts. It was known that a Veterinary Store Depot would be required, with a properly trained technical staff of ledger keepers, store-holders, issuers, packers, men for the purpose of off-loading and loading the various means of transport conveyance, and a building for the reception of stores and the transaction of business. Nothing existed. No officers had been trained in the technicalities of store management, no storehouse existed, and not a single subordinate of any kind. The measures taken by Colonel Rayment at Cape Town, and Major Crawford at Pietermaritzburg, to remedy this state of affairs have been recorded at pp. 10-13. The Authorities were not ignorant of these requirements. We have seen, at p. 113c, that the only scheme approved by the military department for the supply of stores in the Field was a base depot under an officer, and an advance depot under a Farrier-Serjeant! To this man, under no skilled supervision, was to be entrusted the responsibility of issuing poisons and suitable dressings to the army. The whole thing was incomprehensible; nothing, of course, came of it, for neither the man nor the depot existed excepting on paper. The scheme was too wild to admit of consideration, nevertheless, it is necessary to draw attention to the matter as one explanation of the shortcomings of a branch of supply which had to be created in the

Field out of nothing, and, throughout, worked under the greatest stress and difficulties.

The entire absence of any reserve of drugs, dressings or instruments was due to the parsimonious policy of the Cabinet. The impression existed that when material was required it could be bought from the trade. That the prices would then be famine prices was not considered as a deterrent, and the fact that even wholesale houses have a limit in their capacity for delivery was not taken into account. Worse than all, it never seems to have entered the minds of the economists, that the stock of instruments held by the largest houses is only sufficient to meet the ordinary trade, and that if this material were required in large amounts it would actually have to be manufactured. This turned out to be the point on which the whole of the delay in supply worked. Taking the Field without a reserve meant serious delay in supply, for the whole of the material had to be produced, and it was never possible to overtake this initial delay. This was the explanation of the natural grumbling which existed when veterinary officers were unable to obtain for their large hospitals the full amount of dressings and instruments asked for. Those which existed in store had to be doled out equally all round, and the supply never could keep pace with the demand. Another result of this panic form of supply was that material defective in manufacture was received; thermometers incorrectly graduated, hypodermic syringes marked in cubic centimetres instead of minims, and even then of wrong capacity and unequal bore, steel goods of brittle manufacture due to haste in tempering, these and a series of other defects led to increased strain in the matter of supply. It took four months from the time a cable was despatched before stores were received in South Africa. This speaks for itself, and try as one would to anticipate requirements it was impossible to obtain the mastery. Every month saw thousands of horses pouring into the country, all of which, as we have seen, only added to the large number already sick and inefficient, for which drugs, dressings and instruments were required in ever-increasing quantity.

The cost of veterinary stores during the war ran into some hundreds of thousands of pounds, yet not a single officer was exclusively available for the care and distribution of this public property. It was added to the duty of a man whose hands were already full, and who could only devote a fraction of his time to what should have been an entire charge. This officer had to train himself in the intricacies of military supply and accounting; no previous training in this essential duty had been given the officers of the A.V.D., apparently it had never been thought of. The comfortable peace system of getting all that was required direct from wholesale druggists and instrument makers did not lend itself to the training of officers in a duty of the utmost moment on taking the Field, and, in consequence, no scheme had been thought out and no instructions issued.

\* See this History. pp. 3a, 5d, 10a, 63a, 113b, 114a.



Everything was left to the usual policy of drift, in the hope that the stress would never come, or that if it did we would muddle through. For this state of affairs only those are to be blamed who denied to the army the stores it required, and reserves of the same. No training of officers in supply could take place if the material for training them did not exist. If the officers were untrained and the subordinates did not exist, no great effort of imagination is required to form a picture of the confusion, delay and want of system which at first occurred, when establishments for the supply of veterinary stores had to be formed at Cape Town in the middle of hostilities.

While material was being obtained from home for the formation of these store depots, every principal town in Cape Colony and Natal was being ransacked for drugs and dressings. Instruments, of course, were impossible to obtain. Contracts were given to a firm in Cape Town to build Veterinary Field Chests at double the price which would have been paid for the same article in London, and the ships arriving with troops and remounts brought with them medicines surplus to the ships' requirements, which were as far as possible collected and issued. This source was not only irregular but very one-sided, for the material remaining over at the end of the voyage was mainly that which was not needed, for instance, powdered gentian and mustard, of which in due course some tons were received. These no one in the Field required any more than they had been needed at sea. Of the important medicines the balance handed over by ships was relatively small, but nevertheless helped out the question of supply pending the arrival of stores from England. The requisitions on England for the first fifteen months of the war were always based on the supposition that the war might end any day; in the meantime not only was the end of the war as far off as ever, but the number of horses in the Field had increased considerably. This state of affairs lasted throughout the war; it is almost unbelievable that those responsible for maintaining the supply of veterinary stores in the Field were never informed of the increased number of horses which had been called for. Estimates would be framed on one number, while in the meantime thousands more horses and mules had been added to the establishment.

When hostilities broke out the centre of military interest lay in Natal, it was accordingly on the base at Maritzburg that the first pressure of the war fell. Throughout the campaign Natal retained its Depot, as owing to the distance from Cape Town the supply of material to the troops in that colony was greatly facilitated. When the centre of military interest shifted into Cape Colony the struggling Cape Town depot began to feel the stress, but in spite of this Colonel Rayment organized an advanced depot in the heart of hostilities at Naauwpoort, and thereby met all the requisitions on the spot, thus saving a week or two's delay in obtaining the material from Cape Town. There

was no staff for this advanced depot. It had to be tacked on to the Veterinary Hospital, and looked after by the officer in charge as an additional duty (see p. 20b). This depot moved forward when Bloemfontein was occupied, and rendered service of the greatest importance at a most critical time (see p. 58d). The inception of these advanced depots was entirely due to the organising capabilities of Lieut.-Colonel Rayment then acting as P.V.O. In due course another depot was opened at Kroonstad for the supply of troops in its vicinity; later at Pretoria, and in fact, as the line of communication became extended, and veterinary hospitals established, veterinary store depots were formed in connection with these under the same officer, but in all other respects distinct.

A glance at the map shows how unfavourably Cape Town was situated as a base relative to the seat of war. There was a railway journey of 600 miles before the area of hostilities was reached; to remedy this and expedite delivery of stores to the troops, it was decided in January, 1901, to remove half of the Cape Town base to De Aar. At this latter place a large Depot was formed in connection with the Hospital, which supplied all the subsidiary depots in the area of hostilities not supplied by Natal. The result was an enormous saving in time. The depots at De Aar and Pietermaritzburg were kept filled up from Cape Town. The system of supply was, therefore, a base depot supplying advanced depots favourably placed in the field, which, in turn, supplied subsidiary depots in the centre of hostilities. Such a system gets at the root of matters and if, as was aimed at, a three months' supply could be maintained at these various depots, the supply for the troops was independent for some time of delays on, and destruction of the line.

The only veterinary equipment carried with troops in the Field was the new universal pattern chest, already spoken of at p. 4, and the veterinary wallet. The latter was carried on the saddle by farriers, the former was conveyed with the squadron or battery stores, and could only be got at in bivouac. This was obviously wrong, for apart from the damage done to these chests by being thrown into heavily laden waggons, they could not be got at in an emergency, so that veterinary officers had to carry on them not only their instruments, but first aid dressings and medicines for emergency.\* The result of there being no special conveyance for veterinary stores with the troops led to destruction of these chests, which were lightly constructed. The run on them was accordingly very great and could never be kept properly met, in spite of supplies from home, from local manufacture, and by drawing on reserves belonging to the Government of India. We may look a little more closely at these chests; they were the outcome of Colonel Duck's experience in India, and aimed at giving

\* In the guerilla war Columns employed a Cape cart for the carriage of Veterinary stores, in this way material was always available.

a supply of drugs, dressings and instruments calculated to last a unit for three months in the Field. The weight was 80 lbs. These U.P.\* chests, as they were briefly designated, were excellent for the personal use of Veterinary Officers, but too elaborate for those units with no officer attached. They cost in London £20 apiece, and took on an average four months to manufacture. It is obvious that they could only contain a selection of drugs, and even these in small amounts. The principle on which the drugs and dressings were to be replenished was by means of Reserve Boxes containing packets of drugs, and dressings, of sizes suitable for the chests. For a brief campaign such a system would work quite well, the reserve boxes being held at an advanced depot. It was not anticipated that either instruments or fittings would require to be replaced. For completeness and portability these chests could hardly be improved upon; the only difficulty was to find in a hurry what was required, or to repack in haste; there were no spare places, every inch of room was utilized.

It was soon found that these chests in the hands of laymen were stripped of their contents; the instruments, especially knives and scissors, and useful fittings, such as flasks, disappeared, and the chests were returned to the depot practically as an empty shell, needing not only drugs, dressings and instruments, but fittings, such as trays, canisters, etc. These chests, as stated above, were too good for use with any unit where no veterinary officer was present to ensure their being treated with consideration and ordinary care. Some 1300 of them were issued during the war, and many were refitted over and over again. At the end of the campaign hundreds were useless owing to destruction and deterioration, and little but the outside case survived.

The veterinary wallet carried on the saddle by farriers for first aid purposes was a useful accessory, but there had been no time to bring it up to date before the war. Some 850 were issued during the campaign, and had they been more modern in the matter of contents they would have met all the calls made on them in the Field.

Hospital equipment was represented on the outbreak of hostilities by a few pairs of panniers, very heavy, and obsolete in character. As we have seen, at p. 10, until something more modern could be manufactured, the Government of India was requested to furnish hospital equipment.

The supply of reserve drugs and dressings was intended to be met by the Reserve Boxes above described, plus the material remaining over in horse transports, but it soon became evident that this source would be wholly insufficient, and local purchases, both in the Cape and Natal, were required in an endeavour to meet the ever-growing demand. The bills in Cape Town alone ran into several hundreds of pounds a month, and in course of time,

and the continuation of the war, it was evident that this was a very expensive source of supply. In December, 1900, matters were placed on another footing, and an attempt made to obtain everything from home by cable, but this opened further complications in the matter of personnel for stores. Prior to the above date it had not been found possible to obtain the needful ledger-keepers or store-holders, and practically no record of receipts and issues had been made. A Farrier-Sergeant of Cavalry, under the supervision of an officer, was issuer, packer and general utility man, with a small staff to assist him. A Sergeant of Infantry collected stores from the horse-ships and despatched orders up country, but anything more than this could not be attempted. With the supply of stores from home the previous hand to mouth policy, it was hoped, would cease. A four months' stock at the base was projected, and all receipts and issues were in future to be recorded. It may be explained that the War Office system of accounting requires that every separate item shall have a folio in the ledger devoted to it, showing on one side the receipts, on the other the issues, both being supported by receipts. There is as much clerical work involved in issuing a dozen corks as there is in issuing a ton of magnesium sulphate. Where was the trained staff to come from for the refinements of a business house? Civilians in abundance existed at Cape Town, refugees from Johannesburg, waiting for the war to end to resume their occupations, but they were ignorant of the niceties of military ledger keeping, in fact guileless of book-keeping in any form. They were starving and glad of employment, but the material for starting a new departure was hopeless, and as the engagement was only from month to month they took no interest in the work. This point is briefly referred to in the narrative in order to explain the difficulties which occurred later on.

The nature of the demands made on Home in order to attempt to keep up the supply in South Africa beggars description. Medicines were ordered in hundredweights, several of them in tons; there was a standing order, for example, for 10,000 gallons of linseed oil monthly, and, during Rinderpest time, of 800 lbs. of glycerine monthly; vaseline and lard were ordered by the ton, scissors by hundreds of pairs, syringes the same, bandage material by thousands of yards, yet we were never able to overtake demands owing to the initial failure caused by an entire absence of reserve, and the subsequent delay in supply. Even when the material arrived at Cape Town, owing to the congested condition of the docks, the ship would lie from one to three weeks in Table Bay awaiting her turn to discharge, and in the meantime orders were increasing in urgency, and the whole stock would be issued within a few days of its receipt. It is obvious that an equable distribution had to be made; there were fifty hospitals at work, exclusive of demands made by the troops, and the supply received from over-sea had to be doled out in the proportion of

\* Universal Pattern.

the number of sick these contained, holding a minimum of reserve in hand to tide over difficulties until the next supply came to hand weeks hence. It is hardly a matter for surprise that veterinary officers complained of the difficulties and delay in the supply of stores. Their requisitions were not always framed on an economical scale; they were anxious to maintain a reserve, knowing the great delay before the next issue, of instruments especially, could be made, but as we have seen, the stock did not admit of a reserve of all surgical appliances, though to a large extent it did of medical.<sup>o</sup>

Veterinary officers with units in the Field also complained. They would ask for stores to be sent to a certain point by a given date: the time was often insufficient, for the trains were allotted for the various supplies according to the pressure of circumstances, food always having the prior claim, and veterinary stores the last. Trains also were blown up and burned; or material would be removed from them *en route* to make way for something more pressing, and the removed stores were perhaps never heard of again, or were found months afterwards in a railway store. Again, columns pointing on a certain objective by a given date, were, as we have seen, frequently diverted owing to sudden military necessity; their stores arrived but they were not there to receive them. The above reasons by no means exhaust all those which could be offered in extenuation of delay or non-receipt of supply, † they are only mentioned as evidence of the difficulties over long lines of communication in getting material to its destination, and prove the necessity for many subsidiary depots in the Field from which issues to the troops may be made direct.

A considerable amount of useful information was acquired concerning the methods of sending stores into the Field, which may here be recorded for future use:—

(a) Boxes must not be too large; the labour for handling heavy goods does not exist once the stores leave the ship; it is easier also to find store accommodation for cases of moderate size.

(b) The contents of each case, chest, barrel, drum, etc., must be specified outside; without this information case after case has to be opened to find something urgently required. Taking as an example, 71 cases, 108 drums, and 45 kegs, an actual month's supply, it meant if a certain box of instruments or appliance were urgently required, case after

case had to be unnecessarily opened in order to find it, and their contents mislaid before being checked. Drums containing oil are only marked with difficulty, paint does not dry: the only system is a stamped metal label showing contents and weight. Barrels should never be employed for the carriage of stores if they can be avoided; they are wasteful in the matter of storage, very liable to breakage if light, and far too heavy if strong. Vaseline and lard were sent out in large barrels; the contents were rendered semi-fluid in the tropics and escaped through the staves.

(c) Lard, soft soap and vaseline should be in 10 lb. tins, nothing larger; in this way waste is avoided on issue, for the tin is sent out as received, soldered and intact. Similarly, all drugs should be put up in packets of a convenient size, ready for issue; for instance, a demand on Home for half-a-ton of Boracic Acid or Magnesium Sulphate should not be met by sending it in bulk in kegs, but as 1120 one-pound packets, ready for issue. No weighing-out or tying-up should be required at the base, and nothing less than a packet issued.

(d) Large packets of surgical dressings are most wasteful; ounce packets are not only conveniently carried, but if opened and not used up, the soiling and deterioration is less.

(e) Whenever tins can be used they should be employed, but there are many articles which will not travel in tin: Burgundy Pitch, for instance, eats its way through in a very short time; some preparations of Soda and Tincture of Cardamons also act on tin.

(f) Balls of all kinds deteriorate; Aloetic balls are useless after a few months, and those of Ammonium Carbonate after a few weeks. They should be in dozens or half-dozens in a soldered case.

(g) Ether and Chloroform escape even though carefully secured stoppers be used; some special luting is necessary.

(h) Glass stoppers, corks and bungs, packing paper and string are required in large quantities, stencil plates for addresses, carpenters' and cutlers' tools.

(i) A base store depot requires a general utility carpenter, also a cutler who can repair as well as sharpen instruments, including clippers.

There are certain stores which would be better if drawn from some other department of the army rather than the veterinary. Linseed oil, soap and clippers are required everywhere in such immense quantities that they should be an Army Service Corps and Ordnance Supply. This would ensure that they were always obtainable, for wherever a Supply and Ordnance Depot existed, there oil, soap and clippers would be found. Both of these departments have naturally far greater facilities afforded them for transport by rail and road than that allowed to the veterinary service, whose stores were, as we have stated, frequently off-loaded on the road to make room for something regarded as more pressing. So much was this the case that

\* An example of a few items required by an advanced store depot, may be taken as a fair example of the stock which had to be held in order to meet requirements. This one requisition demanded among many other articles:—

Lard	...	...	2000 lbs.
Lard Oil	...	...	2000 galls.
Bandages	...	...	500 dozen
Four different Oils	each	...	100 galls.
Glycerine	...	...	100 galls.
Silver Nitrate	...	...	5 lb.

and other articles in proportion.

† Of eight U.P. chests sent at various times to an officer, not one ever reached him.

it was repeatedly found necessary to send urgently required stores by hand, or under supervision.

The control of the Base Stores at Cape Town should have been the work of a specially selected officer, but no one was available, and it fell to the veterinary officer at the Base (see p. 48) whose hands were already full with his own duties, and finally on the Senior Veterinary Officer of the Cape Colony Command. The P.V.O. had no officer he could spare to take over what was an immense business concern, although, as we have seen at p. 194c, Colonel Long had an executive veterinary officer travelling about with him.\* The entire responsibility of this huge work fell on a man whose hands were already full, and whose duty lay over some thousands of miles of communication. The subordinate staff supplied him we have already glanced at, and its makeshift character—untrained men with no knowledge of the work in any of its branches, ignorant of the complexities of issuing and accounting for army stores; a soldier personnel which, having learned something of the rudiments of the work, were suddenly taken away to rejoin their regiments. The illness of a store holder or packer brought matters to a standstill, for in the confined building supplied, stores stood several feet in height, and only the man handling them knew where things could be found. Officers were sent from time to time to render assistance, but all but one were invalids and soon went sick; yet the work had to go on, requirements months in advance had to be anticipated, and the pulse of the entire mechanism constantly felt, in order that the work of supply should be regular, and the distribution of drugs, and especially instruments, equable. A regular study of demand and stock was required of the hundreds of medical and surgical articles in use, while the ledgers had to be inspected to see that they were posted, and incessant calls for outstanding receipts made.

Hitherto the story of the stores has been that of supply and distribution, but it is not possible to conclude the subject without recording the inquisitorial inquiry which followed the termination of hostilities. When the end came civilians from the War Office arrived armed with lists of all stores sent to Africa; they began operations by taking stock of what remained, and then asked for a full explanation of all issues made during the past two-and-a-half years of pressure, supported by receipts! For three months the Senior Veterinary Officer was engaged with these courteous but inexorable officials, endeavouring to explain, in the absence of receipts, how and in what way hundreds of tons of stores had been disposed of. It may be judged from the previous remarks that the issue of a suture needle gives as much clerical work and correspondence as a large case of instruments, or an aloetic ball as much as 10 lb. of Iodoform. We also know from the narrative that for the first fifteen months of the

war no receipts or record of issues had been kept, but that the whole energies of the staff had been directed towards keeping the army supplied under extraordinary difficulties, instead of concentrating on ledgers and receipts for which there was no clerical staff.

One would have thought these gentlemen had never heard of war pressure and confusion, had never read of the destruction of trains and convoys, of the loss of stores in the Field from preventable and non-preventable causes; of the chaos and confusion resulting from unexpected military conditions, nor of the unrelenting, unyielding dead pressure of two-and-a-half years' campaigning. They took the academic view that a supply must be entered on one side of a ledger, and expended on the other, a receipt covering every issue. As to whether the circumstances of the case permitted, or the available mechanism existed, for carrying out in war the refinement of a place of business in peace was no concern of theirs. Two points strike the observer in connection with this inquiry: (1) That it could lead to nothing; it could not recover stores burned in trains, lost in rivers, or abandoned on the veldt; it could be of no use to those who required the stores and did not receive them, nor to those who received and made the best use of them. (2) It did not demand compensation from those units who carelessly treated and damaged stores, or allowed the contents to be pilfered. Curiously enough it did not appear to strike the academic mind that the sole effect of their inquisition was to worry unnecessarily the only persons who had a claim on their consideration, and took no account of those whose business had been to expend it. In other words, it could not lead to any economies, for so long as a receipt could be produced it was no concern of these gentlemen whether the issues to any one unit were twenty times in excess of what corresponding units required, nor what was done with the material when so received.

For three months this solemn farce of audit went on; sheets of queries often arising, as an examination of the ledgers revealed such discrepancies, for example, as the following, taken from actual remarks: "Under date . . . 4000 flannel bandages are entered in the ledger as 3826. Explain the discrepancy?" Here is another; "20 cwt. 3 qr. 9 lb. vaseline brought on charge as 20 cwt. only. What has become of the balance?"

The horse-ships were a favourite subject of attack. The unexpended drugs on these were as far as possible collected, and supposed to be brought on ledger charge. There were 520 voyages made by horse-transports during the campaign, and each of these vessels should have appeared in the ledger as landing drugs. Some landed them, some did not. They were frequently forgotten by the Transport Veterinary Surgeon; small wonder, when it is borne in mind that owing to the congested state of the docks the last horse was hardly across the gangway when the ship was moved off to make-way for the next. Even if the material were landed

\* A C.V.S., also, was uselessly sent to Australia (see p. 225c).

it could not always be recovered in the bustle of clearing the quay for the next vessel. The War Office Auditors finally submitted a list of 70 horse ships, in which they ask for information regarding the balance of medicines existing on vessels which arrived two years previously! Five minutes spent at the docks during the war would have been a useful object lesson.

We do not propose to extend the criticism of this audit any further: sufficient to say that the supply of an army in the field for a long campaign was an easier task than three months with the War Office Auditors. It is doubtful, even had they been on the spot during the war, whether it would have led to any practically useful results, for, after all, they did not look for efficiency in supply, but merely ledger records. As an example of academic finance the following may be recorded:—

The officials who made the above inquiry were requested to sanction the issue to the troops as firewood, of some 300 U.P. chests returned after the campaign and unfit for further use. Firewood had to be purchased for the troops, and was scarce, so that a saving would have resulted. They decided, however, that the chests must be sold by public auction. The auctioneer's fees and advertising came to over three pounds, the articles were sold for 7/6, and the man who bought them left them on the ground after removing the copper enema tubing. The chests had finally to be burned where they lay.

While the rigorous financial scrutiny of veterinary stores was being carried out at Cape Town, the financial blunders connected with the sale of food-stuffs, recorded at p. 298c, were being perpetrated. These were the outcome of the absence of a financial adviser. Had the gentlemen who were employed for three months dealing with petty questions of veterinary stores, gone beyond recovery, been engaged with matters of immediate interest and practical importance, they would have saved from three-quarters to one-and-a-quarter million sterling to the country.

#### VETERINARY SERVICES.

The last question we have to deal with is that of the Veterinary Services employed during the war and their organization. We have used the plural intentionally; there was not—as there should have been—a single veterinary service under a central administration, welded into one compact whole and discharging its military duties under skilled direction. This fact will have been already gathered from these pages, but the point needs emphasis, both in explanation of our numerical weakness, our shortcomings, as well as our inability to obtain the best results from the material on the spot. What actually existed was a series of veterinary services, each independent of the other, and only one of which possessed a directing or administrative staff acting under central control. The others possessed

no organization, were independent of everyone excepting the commanding officer of the regiment, and their strength was frittered away for want of organization and unity. The following constituted the veterinary services employed during the war:—

- (1) Officers of the Regular Service
- (2) " " Imperial Yeomanry
- (3) " " Over-sea Colonial Forces
- (4) " " South African " "
- (5) Civil Veterinary Surgeons with the Field Army
- (6) Civil Veterinary Surgeons with the Sea-Transport Service

Groups (1) and (5) worked together; groups (2), (3) and (4) were independent, without administrative officers, and under no departmental control. As a consequence their strength, which was very material, was entirely lost to the army at large; practically they went where they liked, and did what they liked; excepting as volunteers, they could not be employed on any duty other than with their regiments. No other departmental branch of the army was similarly handicapped; in no other branch were there officers actually on the spot who could not be utilized for general duty, and for whom no administrative staff was provided; no other branch had to cable to England for further professional help at a time when it was at hand, but could not be employed. The story seems incredible, but so ignorant are we of groups (2), (3) and (4) that even at the present day the number and names of the officers employed are partly or wholly unknown.\* For this condition of affairs the authorities who sanctioned a regimental organization for the veterinary services of the irregular forces are alone to blame. They knew that in the regular service it had been tried for a century, and, though capable of working in peace, it had at once broken down in war. (See p. 5b). Their approval of an obsolete and effete system for the irregular forces showed not only a lack of knowledge of the subject, but also a want of appreciation of the difficulties of untrained men in dealing with sick animals in war. It also showed a complete ignorance of the value and utility of administrative veterinary officers in the Field.

To send a body of technical officers on service without a directing head, is like sending troops into action without officers. Without administrative heads responsible for the proper working of the veterinary service the executive officers are literally as sheep without a shepherd: this condition is naturally accentuated by the ignorance of military matters of officers of the irregular services. Each in his own way, and according to his light, was doing his best, but individual efforts may fall far short of what is necessary. It is impossible where the executive is ignorant of military methods and of war, that they can anticipate the unknown or provide against contingencies of which they have never heard. Their efforts should have been co-

\* As a consequence we are compelled to forego the list of names promised in the footnote on p. 20a.

ordinated by an administrative service, a general policy given them to follow, a driving mechanism furnished to keep the current flowing, and a responsible person to direct and advise young officers on technical or military questions at a time when such advice and help is all-important. It seems beyond belief that this body of voluntary professional helpers was thrown into the Field and left to work out their own salvation. It was an unfortunate waste of useful material for which the authorities must be held responsible, they having, as we have seen, sanctioned the system for the veterinary service of the Imperial Yeomanry at a time when they had abolished it from the Regular Forces on account of its uselessness.

The difficulties and disadvantages of which we speak were those personal to the officer, but these by no means cover the question. It must have been known that the horses of the Irregular Forces would suffer from accident and disease, and, as a fact, we knew that the Yeomanry had visions of a veterinary hospital as part of their scheme. How was it supposed that the disposal of the sick in the Field, or the organization of hospitals for their reception were to be effected by officers with no knowledge of either question, or of military service? We shall see presently the Yeomanry effort to establish a veterinary hospital and its results. The criticism directed by the Yeomanry Authorities against their veterinary officer for his failure in this respect is obviously unjust, and shows a profound ignorance of the technical difficulties concerned. We are not born into the world with knowledge; everything has to be acquired by training and experience. In the case of the Yeomanry and other Irregular Forces there were no administrative veterinary officers, and consequently no senior officer to whom they could look for technical advice, guidance or inspiration.

We may now take each of the units comprising the Veterinary Services during the war, and glance at their work.

#### ARMY VETERINARY DEPARTMENT.

When war broke out the strength of this department was fifty officers short of requirements for the Field, and there was no reserve.\* By keeping the meagre veterinary establishment of India short of ten officers, a total of sixty-one was obtained for the campaign, and this left no one in England but the War Office and Educational Staffs. It was evident that not only were the available numbers wholly insufficient for the needs of the Field Army (see pp. 4c and 30c), but also that not a single reserve existed to make good the wear and tear of war. The veterinary officers of the Irregular Forces instead of being put in the pool were, as we have seen, kept distinct, and in order to supply the extra numbers required a Civil Veterinary Service had to be created as an adjunct to the Regular Service.

The growth and training of the Veterinary Service

are referred to at pp. 5b, 28a, 73d and 117a, and need not be repeated. An army is a vast educational machine engaged in the training of men who are joining or leaving it every day. The officers are the schoolmasters, and their work, in turn, is supervised by higher authority. In the various departments of the army the officers are broadly grouped into executive and administrative; the executive officers correspond to the schoolmasters in the fighting branches, the administrative are obviously the supervisors and directors. There is a somewhat irregular standard of proportion of administrative to executive officers, which we need not enter into, but it is evident that, during war, an expansion not only of executive but of administrative officers is required. The administrative officer is charged not only with the supervision in every respect of the executive, but on his shoulders falls, as the technical representative of the General under whom he serves, the responsibility of making provision for the sick, stamping out or controlling epizootic diseases, questions of dieting, of suitable or unsuitable feeding stuffs, and of making recommendations for the better care of animals and their preservation from accident and disease. In a word—he is responsible for everything connected with his officers and their subordinates, for the health of army animals, and the proper provision for their care and treatment when sick.

On the energy and ability of the administrative staff hangs the fate of the service they represent. As a consequence, they cannot be selected with too great judgment. Full professional endowment combined with seniority do not make an administrative officer, any more than they make a commanding officer of a regiment. There must be in addition an innate capacity for the work of organization and dealing with men, grafted on a constitution of physical fitness, activity, and relative youth. The administrative officer must ever be the highest example of devotion to duty which can be placed before his juniors. His place is not in an office, but among the troops; he must be on the spot, seeing matters with his own eyes, seeing his officers at work, helping them out of their difficulties, solving their doubts, assisting with advice, stimulating zeal, and bringing to notice exceptional ability. He should encourage initiative, for this is the means adopted by the capable individual to carry out the plans and aims of his administrative officer. These aims should be known to all his subordinates, for without such knowledge not only are they working in the dark, but may actually, through ignorance, frustrate his plans. The water-tight compartment system adopted by some is absolutely senseless. Reticence is imposed on administrative officers in regard to certain well-understood questions, but to carry this to the extent of not allowing the right hand to know what the left is doing is a misconception of office, and will surely bring its own punishment. His officers must clearly under-

\* The peace establishment is given at p. 4c.



stand the scheme he wishes followed for the inspection and treatment of the sick in the Field, the early detection of contagious and infectious diseases, the methods of dealing with large bodies of sick and debilitated animals, the management of Field Hospitals, the principles and practice of evacuation to Stationary Hospitals on the line of communications, the supply and distribution of medical and surgical stores, in fact, everything connected with the relief of suffering and early restoration to usefulness.

The number of administrative officers in the Field obviously depends upon the strength of the Force employed. But it is clear that where the bulk of the executive is civilian, as in the war under consideration, a further increase in the number of administrative officers is necessary in order to cope with the want of training of the civilian staff. As a matter of fact there were, at any period of the war, fewer administrative officers in South Africa than were sanctioned for home during peace time. For the first five months of the war there were nominally two, but as one was shut up in Ladysmith, there was actually only one administrative officer for the whole of Cape Colony and Natal, with four bases, four lines of communication, and an immense number of animals, for the veterinary care of which he was nominally responsible. We have already studied in detail what occurred during this crucial period in the matter of the wear and tear of animals, and the hopeless position of the veterinary service, with no hospitals for the sick and no administrative officer in the Field to organise and direct the veterinary work.

Even had both the above officers been available, it was impossible for such a microscopic staff to control the immense area of operations which daily became wider and longer. To realize these distances we may conveniently refer to the comparisons made at p. 6d. It is easy to understand the veterinary chaos occurring as the result of there being no guiding hand on the spot, the only place, as we have seen above, where the administrative officer can effectively perform his duties. Each line of communication, each base, each Division of the Army, the Cavalry Division, the Mounted Infantry organization, and the Transport needs its own administrative officer. All the faults in the veterinary service pointed out in these pages were accentuated by the absence in sufficient number of directing organizing heads of ripe experience and sound judgement. Even the errors arising from the employment of an untrained civilian staff would have been materially corrected by having senior officers present for its guidance and instruction.

Every representation to create temporary administrative appointments with local rank met with a refusal on the part of the authorities, yet, as we have already mentioned (p. 49d), every other branch of the army had temporary rank granted to officers acting in a higher capacity. Excluding the P.V.O., who, as we have seen, was not available until the

war was five months old, some eight or nine administrative officers were required for the first phase of the war. Can it be wondered at that in the Field there was an entire absence of cohesion in the veterinary service, with not a single officer empowered to hold it together or work it? Can it be a matter of surprise that the service failed when it possessed neither directing heads nor appliances to work with? Later in the war there should have been at least twelve administrative veterinary officers in the Field, including those required for Hospital purposes. Had these existed, no occasion for the appointment of a layman as an Inspector of Hospitals would ever have arisen.

We have devoted some little space to explaining the duties of administrative veterinary officers in the Field, as they are not generally understood; even the Staff did not appreciate their utility or necessity, though glad enough for help when the technicalities of the work became too much for them. No body of workers, either in military or civil life, can be left without supervision. We have seen (p. 69a and c) the P.V.O. left miles behind the army, performing duties which should have been carried out by a subordinate veterinary officer. The Staff has yet to learn that if good veterinary work in the Field is desired the responsible man must be on the spot, and not at the end of a vulnerable telegraph line; that the numbers must be sufficient to exercise effective control over the whole Field. Given these and the means to work with, we shall hear no more of the breakdown of the veterinary service in war. Until then, as in the case of South Africa, we publicly decline to be held responsible for the failure which we earnestly endeavoured to avert.

The small band of executive officers, whose numbers we have mentioned at p. 4c, were good. With few exceptions they were relatively young. The best evidence of their value and usefulness is afforded by the constant struggle occurring for their possession and retention by units. They were, however, a mere drop in the ocean; without making any allowance for sickness or death, the total would not have supplied the veterinary staff subsequently required for Hospitals and Remount Depots alone.

It is sometimes said by those with no practical knowledge of the subject that nothing can be done for the sick, lame and wounded in the fighting line, and that veterinary officers are better placed on the line of communication. This shows an entire misapprehension of the duties of a veterinary officer, and what he is capable of effecting with proper organization. Who, for instance, is the best person to determine whether an animal should leave the fighting line or be sent to Hospital? (See p. 24c). Who is there capable of detecting an outbreak of contagious or infectious disease, and either nipping it in the bud or keeping it under control? Who is capable of examining captured animals and ascertaining their freedom from disease before being utilized in the ranks or elsewhere? What is to

occur to fire, saddle, and other urgent injuries; are these and the treatment of internal diseases to be left to the squadron or battery farrier? An examination of the figures on p. 227b gives some notion of the amount of sickness and injury occurring in the Field.

To hold such a view as the above is practically the complement of the suggested policy that horses should be worked out and then destroyed, for such is what would actually occur. We have seen in these pages the military results of such a system, and the drain it causes on horse supply; it is monstrously expensive, and it is certainly wanting in the elements of humanity. Animals in war have a right to treatment (see p. 41d), quite apart from the fact that when cured they are a potential source of strength, and of more value than a remount.

#### VETERINARY SERVICE OF THE IMPERIAL YEOMANRY.

We have felt throughout this History that the services of the officers of the Imperial Yeomanry, as well as that of all other officers of the Irregular Forces, have received very inadequate notice. This, however, is not due to neglect, but to ignorance of the necessary facts which in a regimental organisation were unknown to those outside. We should really know nothing of this service but for two reports\* published by the Deputy Adjutant-General of the Imperial Yeomanry. In these we are told that it was decided that the veterinary service of this arm should be on a regimental basis. The officers were engaged on contract, and received the pay and allowances of a Veterinary-Lieutenant. Every candidate for appointment should, according to Regulation, have been a qualified practitioner. The D.A.G. tells us these could not be obtained in sufficient numbers, from which we judge that unqualified men were engaged. Nothing, however, is said on this serious point, or as to who determined the relative fitness of those so engaged. No mention is made in the report of the number of officers appointed to the Yeomanry, but we believe it was about thirty, of whom two subsequently died.

As we have seen at p. 305d, the above organisation was doomed to failure. Even had the obsolete regimental system been a workable scheme, there were no administrative officers to conduct it. A good example of this may be taken from the above-mentioned Reports. It was intended to form a Remount Depot near Cape Town at the Imperial Yeomanry Base Depot; the horses arrived, some 2000 in all, which were placed in enclosures, but there was no picketing gear, and no local Kafir labour for the care of the animals. In connection with this depot it was intended to form a veterinary hospital, but there was no establishment for it, and no one to organise. Later, some effort was made to imitate the organisation of "an excellent horse

hospital" belonging to the Regular Forces, which lay close to the I.Y. Depot, but the first efforts were unsatisfactory, for which the D.A.G. Imperial Yeomanry blames the veterinary officer-in-charge; but it seems to have been lost sight of that no civilian suddenly imported into military service could possibly organise a hospital without training and experience. Even then, nothing could be done without the necessary personnel for looking after the sick, and at one time, according to the Report, there were 190 sick and lame horses in this hospital and no men to look after them.

This hospital finally came into the hands of a retired officer of the A.V.D., who was employed on Yeomanry Remount duty, and the D.A.G. notes that a rapid improvement took place. The organisation of a Yeomanry Remount Depot and Veterinary Hospital was shortly swept away, and passed into the hands of the Regular Service.

The D.A.G., in his Report, insists on the importance of a good veterinary hospital. He recognises the necessity of departmental control in the statement that its organisation must be left to an efficient veterinary officer, to whom the needful funds for labour and material should be allotted: but he does not, we think, appear to have fully realised the difficulties in having such a place organised by untrained officers, and without a departmental directing head. There must be not only a clear understanding of requirements, a knowledge of finance and discipline, of where and how to obtain the needful military and technical equipment, forage and rations, but there must also be a knowledge of how to systematise the treatment and management of a large number of sick horses in the Field. This can only be gained by experience previously acquired in a hospital. We think the failure of the officer, of whom the D.A.G. complains by name, is readily understandable; it would have been an extraordinary circumstance had he succeeded.

It was a blunder of the first magnitude to send this arm into the Field with a veterinary service on a regimental basis, and we have seen the results.

#### VETERINARY SERVICE OF THE COLONIAL FORCES.

This also was arranged on a regimental basis, and possessed all the disadvantages which we have pointed out in connection with the Yeomanry organisation.

Opportunity has been taken to place on record at p. 6b, 10b, 47a, an appreciation of the services rendered by the small but well organised Natal Army Veterinary Service, which in distinction to the above, was placed on a departmental basis before the war occurred.

The number of officers serving with the Colonial Forces, South African and Over-sea, is unfortunately unknown, but appears to have been about 55. Their losses are also unknown. This is evidence of how completely their organisation was out of touch with the Veterinary Service of the Regular Forces.

\* Imperial Yeomanry, First Report, dated 15th May, 1901, Parliamentary Paper, Cd. 803.

Imperial Yeomanry, Second Report, dated 1st January, 1903, Supplementary to the above.

#### CIVIL VETERINARY SERVICE.

The shortcomings of a hastily collected, untrained service, for duties requiring a special military training of at least a year, have, from time to time, been dealt with in the pages of this history. We have shown that to turn adrift in the Field some hundreds of civilians imbued with patriotism does not constitute an efficient veterinary service.

With few exceptions, the C.V. Surgeons were all young men, the majority having recently qualified. They were engaged for a year (p. 27d), at the end of which time they were free to re-engage or return home. Those who joined at the beginning of the war received the pay and allowances of a Veterinary Lieutenant, and two months' pay as gratuity on completing the year of service. Towards the end of the year 1900 it was evident this rate of remuneration was insufficient to retain the services of those now experienced. In June, 1901, it was decided that better terms must be offered; an increase in pay of 5/- a day was given after eighteen months' service, and a gratuity of fourteen days' pay for every three months' additional service. A short experience of these terms proved they were not sufficiently attractive to men who were losing time in starting in private practice. In December, 1901, it was approved that the increase of 5/- a day should be given at twelve months' service, and an additional 2/6 after eighteen months' service. These improved terms did not lessen the difficulties, so that in May, 1902, it was decided to offer £1 a day pay for the first year, to be raised to 25/- a day after twelve months' service, and 27/6 after eighteen months' service. How far these terms would have worked had the war continued we cannot say, but £1 a day, and the usual allowances and gratuity, should be the minimum offered to a civilian service which has no claim on the State in the event of an injury, other than that received in action, or impairment of health the result of service in the Field.

The total number of Civil Veterinary Surgeons engaged for the war was 283, of whom seven died during the campaign, and one or more shortly afterwards. The first arrivals occurred at the end of 1899; by the time the war had lasted six months there were 120 civil veterinary surgeons in the Field. The difficulties and disadvantages under which these gentlemen laboured are fully set forth at p. 28a; rank was withheld from them (see p. 48d), though granted to Yeomanry and Colonial veterinary officers, and, in fact, to everyone in the Field excepting Civil Surgeons and Civil Veterinary Surgeons. They possessed no authority (p. 27d), though frequently placed in positions where such was essential to the working of their charge (see pp. 73b and 197d).

It is unnecessary to reiterate their difficulties, they were many and acute. In one respect the regular service failed towards them, and that was in not making sufficient allowance for their ignorance of military matters. We forgot, in the stress of events, the years it had taken us to acquire a working knowledge of the military machine, and often, we fear, expected more than the average civilian could yield. That there were many weak vessels among them goes without saying where no selection was possible, but many of their difficulties would have disappeared had there been administrative officers to whom they could have looked for instruction, instead of being—to use a local expression—"dumped down" on the veldt and left to their own devices. When it is remembered that the average proportion of Civil Veterinary Surgeons to Regular officers was as 4½ to one, it will be seen what a large share of the veterinary duties they were destined to bear.

The Civil Veterinary Service when trained did useful service; some of its members possessed marked ability and did excellent work, as the pages of this History have testified. It took six months to train a first-rate man, the average man took a year, and many were never trained (see p. 28c). This was due in many cases to ineptitude, in others to lack of opportunity, owing to the insignificant number of administrative officers.

The mushroom-like character of the forces used in the war had its reflex in the veterinary service. Regiments were created and disbanded in the course of a few months, and new regiments took their place. Similarly, civil veterinary surgeons, just as they were getting in touch with their work suddenly returned home on expiration of contract, and the whole business of acquiring knowledge by the process of blundering had to be gone through with the new arrivals. Such a system is hopeless as an effective organization. This system of civil veterinary aid in war is absolutely indefensible. Over and over again we have insisted that the Field is not the place to carry out a primary training, no matter for what service the person is intended.

#### THE SEA-TRANSPORT VETERINARY SERVICE.

This has already been dealt with. We have seen, at p. 255b, that the work of the British Veterinary Surgeons gave satisfactory results, but the foreigners engaged by the Remount Department were badly reported upon, and brought great discredit on the British service. The rates of remuneration are dealt with at p. 262b. The difficulties of Transport Veterinary Surgeons at sea are fully recorded at p. 255c *et seq.*, and their equally great difficulties ashore have been illustrated in detail at p. 262d, footnote *et seq.*

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